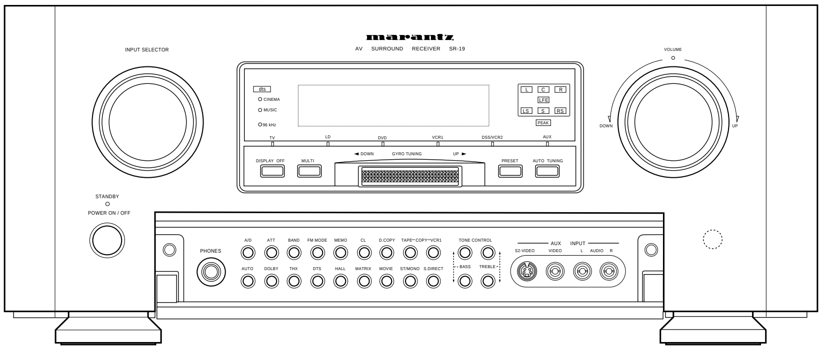
Service Manual

SR19 /K1G, /S1G, /U1B

AV Surround Receiver



SR-19

TABLE OF CONTENTS

Please use this service manual with referring to the user guide (D.F.U.) without fail.

marantz®

SR-19

323J855010 MIT

First Issue 1999.11

Printed in Japan

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA
MARANTZ AMERICA, INC.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172
USA
PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

EUROPE / TRADING
MARANTZ EUROPE B.V.
P.O.BOX 80002, BUILDING SFF2
5600 JB EINDHOVEN
THE NETHERLANDS
PHONE : +31 - 40 - 2732241
FAX : +31 - 40 - 2735578

BRAZIL
MARANTZ BRAZIL
CAIXA POSTAL 21462
CEP 04698-970
SAO PAULO, SP, BRAZIL
PHONE : 0800 - 123123(Discagem Direta Gratuita)
FAX : +55 11 534. 8988

PROFESSIONAL **AMERICAS**
SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

CANADA
LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

AUSTRALIA
JAMO AUSTRALIA PTY LTD
1 EXPO COURT, P.O. BOX 350
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - 3 - 9543 - 1522
FAX : +61 - 3 - 9543 - 3677

THAILAND
MRZ STANDARD CO.,LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE
WO KEE HONG (S) PTE LTD
WO KEE HONG CENTRE
NO.23, LORONG 8, TOA PAYOH
SINGAPORE 319257
PHONE : +65 2544555
FAX : +65 2502213

NEW ZEALAND
WILDASH AUDIO SYSTEMS NZ
14 MALVERN ROAD MT ALBERT
AUCKLAND NEW ZEALAND
PHONE : +64 - 9 - 8451958
FAX : +64 - 9 - 8463554

TAIWAN
PAI- YUING CO., LTD.
6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA
WO KEE HONG ELECTRONICS SDN. BHD.
SUITE 8.1, LEVEL 8, MENARA GENESIS,
NO. 33, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR, MALAYSIA
PHONE : +60 3 - 2457677
FAX : +60 3 - 2458180

JAPAN *Technical*
MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

日本マランツ株式会社
本　社　〒228-8505
神奈川県相模原市相模大野7-35-1
営業本部　〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA
MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

991101MIT

1. TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency Range .... 87.5 – 108.0 MHz
Usable Sensitivity .... IHF 1.8 µV/16.4 dBf
Signal to Noise Ratio .... Mono/Stereo 76/72 dB
Distortion .... Mono/Stereo 0.2 / 0.3 %
Stereo Separation .... 1 kHz 45 dB
Alternate Channel Selectivity .... ±400 kHz 60 dB (U version)
±300 kHz 60 dB (K, S version)
Image Rejection .... 98 MHz 70dB
Tuner Output Level ...... 1 kHz, 75 kHz Dev 800 mV (U version)
1 kHz, 40 kHz Dev 800 mV (K, S version)

AM TUNER SECTION

Frequency Range .... AM : 520 – 1710 kHz (U version)
531 – 1602 or 520 – 1710 kHz (K version)
531 – 1602 kHz (S version)
Signal to Noise Ratio .... 50 dB
Usable Sensitivity .... Loop 400 µV
Distortion .... 400 Hz, 30% Mod. 0.5%
Selectivity .... ±20 kHz 70 dB (U version)
±18 kHz 70 dB (K, S version)

AUDIO SECTION

Rated Power
Stereo Mode FRONT (20 Hz – 20 kHz) ..... 8 ohms 125W / Ch (2ch driven)
Center (40 Hz – 20 kHz) .... 8 ohms 125W / Ch
Surround .... 8 ohms 125W / Ch
THD Front (20 Hz – 20 kHz) .... 8 ohms 0.05%
Input Sensitivity/Impedance
Linear .... 350mV/47 kohms
Signal to Noise Rate (IHF A)
Linear .... 85 dB
Dolby Surround Adjacent Channels Separation .... 55 dB

VIDEO

Television Format .... NTSC (U version)
PAL/NTSC (K, S version)
Input Level/Impedance .... 1 Vp-p/75 ohms
Output Level/Impedance .... 1 Vp-p/75 ohms
Video Frequency Response .... 5 Hz to 8 MHz (– 1 dB)
S/N .... 60 dB

GENERAL

Power Requirement .... AC 120V 60 Hz (U version)
AC 220 50/60 Hz (K version)
AC 230V 50 Hz (S version)

Power Consumption 400W
Dimension (MAX)
Width .... 18 inches (458 mm)
Height .... 7-½ inches (190 mm)
Depth .... 19-½ inches (496 mm)
Weight .... 48.5 lds. (22 kg)

ACCESSORIES

Remote Control Unit RC-18SR 1

Dolby Digital(AC-3) SECTION

Output Level (Master Volume is set 0dB)
Front L/R, CENTER, SURROUND L/R
1 KHz, 0 dB FS INPUT 1.1V
SUBWOOFER
40 Hz, 0 dB FS INPUT 3.8V

Frequency Response
Front L/R, CENTER, SURROUND L/R (LARGE)
20 Hz – 20 KHz .... -1dB

Total Harmonic Distortion
Front L/R, CENTER, SURROUND L/R (1 KHz) .... 0.01% or less
SUBWOOFER (40 Hz) .... 0.07% or less
Signal to Noise Ratio (IHF-A) .... 96 dB
Channel Separation (1 KHz) .... 70 dB

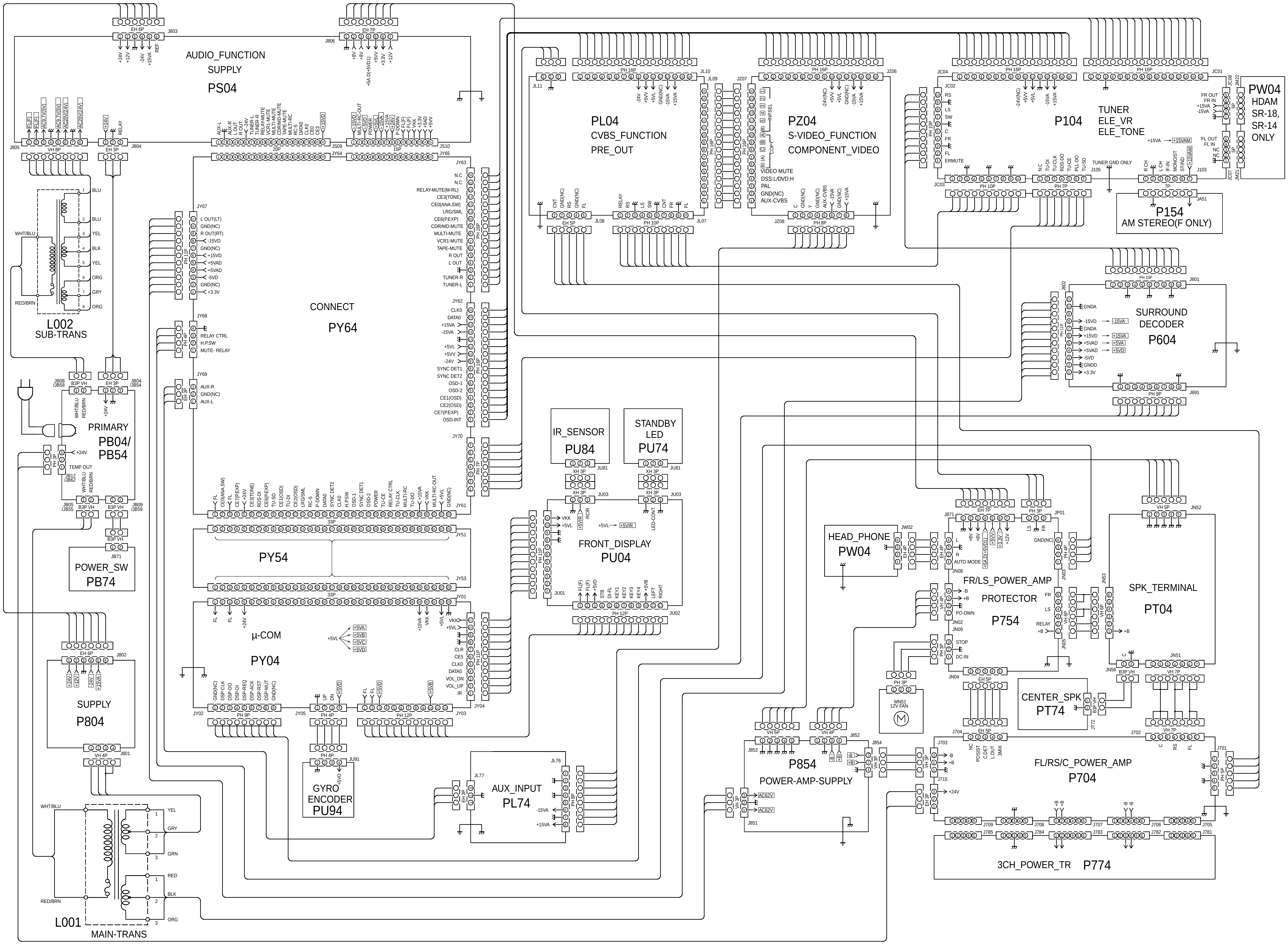
Specifications subject to change without prior notice.

Remark : Bass signal output from Sub Woofer terminal for SR-19

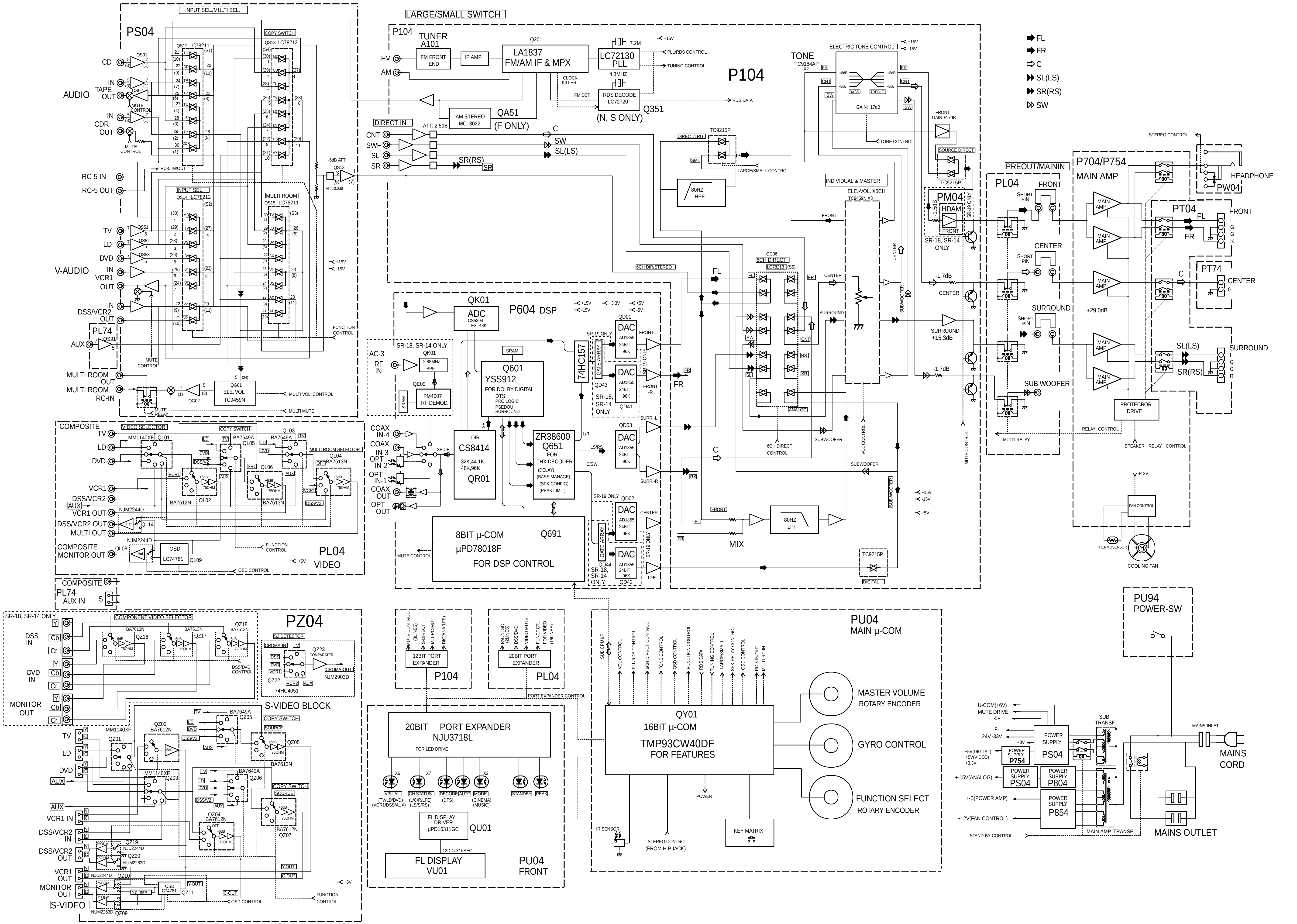
Sub woofer output is not active while all surround modes. Please refer to the following table.

SPK setup				SubWoofer Output by Surround mode							
Sub Woofer	***Front***	***Center***	***Rear***	**THX cinema** *(5.1ch decoding)*	**DOLBY or DTS** *(5.1ch decoding)*	**THX cinema** *(Pro Logic decoding)*	**DOLBY** *(Pro Logic decoding)*	**STEREO**	**AUTO** *(5.1ch decoding)*	**AUTO** *(Stereo decoding)*	**Mono**
ON	Large	Large	Large	LFE	LFE	none	none	L+R	LFE	L+R	none
			Small	LFE+LS+RS	LFE+LS+RS	none	none	L+R	LFE+LS+RS	L+R	none
			None	LFE	LFE	none	none	L+R	LFE	L+R	none
		Small	Large	LFE+C	LFE+C	C	C	L+R	LFE+C	L+R	C
			Small	LFE+C+LS+RS	LFE+C+LS+RS	C	C	L+R	LFE+C+LS+RS	L+R	C
			None	LFE+C	LFE+C	C	C	L+R	LFE+C	L+R	C
		None	Large	LFE	LFE	none	none	L+R	LFE	L+R	none
			Small	LFE+LS+RS	LFE+LS+RS	none	none	L+R	LFE+LS+RS	L+R	none
			None	LFE	LFE	none	none	L+R	LFE	L+R	none
	Small	Large	Large	LFE+L+R	LFE+L+R	L+R	L+R	L+R	LFE+L+R	L+R	none
			Small	LFE+L+R+LS+RS	LFE+L+R+LS+RS	L+R	L+R	L+R	LFE+L+R+LS+RS	L+R	none
			None	LFE+L+R	LFE+L+R	L+R	L+R	L+R	LFE+L+R	L+R	none
		Small	Large	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R+C	L+R	LFE+L+R+C	L+R	C
			Small	LFE+L+R+C+LS+RS	LFE+L+R+C+LS+RS	L+R+C	L+R+C	L+R	LFE+L+R+C+LS+RS	L+R	C
			None	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R+C	L+R	LFE+L+R+C	L+R	C
		None	Large	LFE+L+R	LFE+L+R	L+R	L+R	L+R	LFE+L+R	L+R	C
			Small	LFE+LS+RS	LFE+LS+RS	L+R	L+R	L+R	LFE+LS+RS	L+R	C
			None	LFE+L+R	LFE+L+R	L+R	L+R	L+R	LFE+L+R	L+R	C
OFF	Large	Large	Large	none	none	none	none	none	none	none	none
			Small	none	none	none	none	none	none	none	none
			None	none	none	none	none	none	none	none	none
		Small	Large	none	none	none	none	none	none	none	none
			Small	none	none	none	none	none	none	none	none
			None	none	none	none	none	none	none	none	none
		None	Large	none	none	none	none	none	none	none	none
			Small	none	none	none	none	none	none	none	none
			None	none	none	none	none	none	none	none	none
	Small	Large	Large	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			Small	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			None	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
		Small	Large	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			Small	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			None	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
		None	Large	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			Small	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
			None	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited

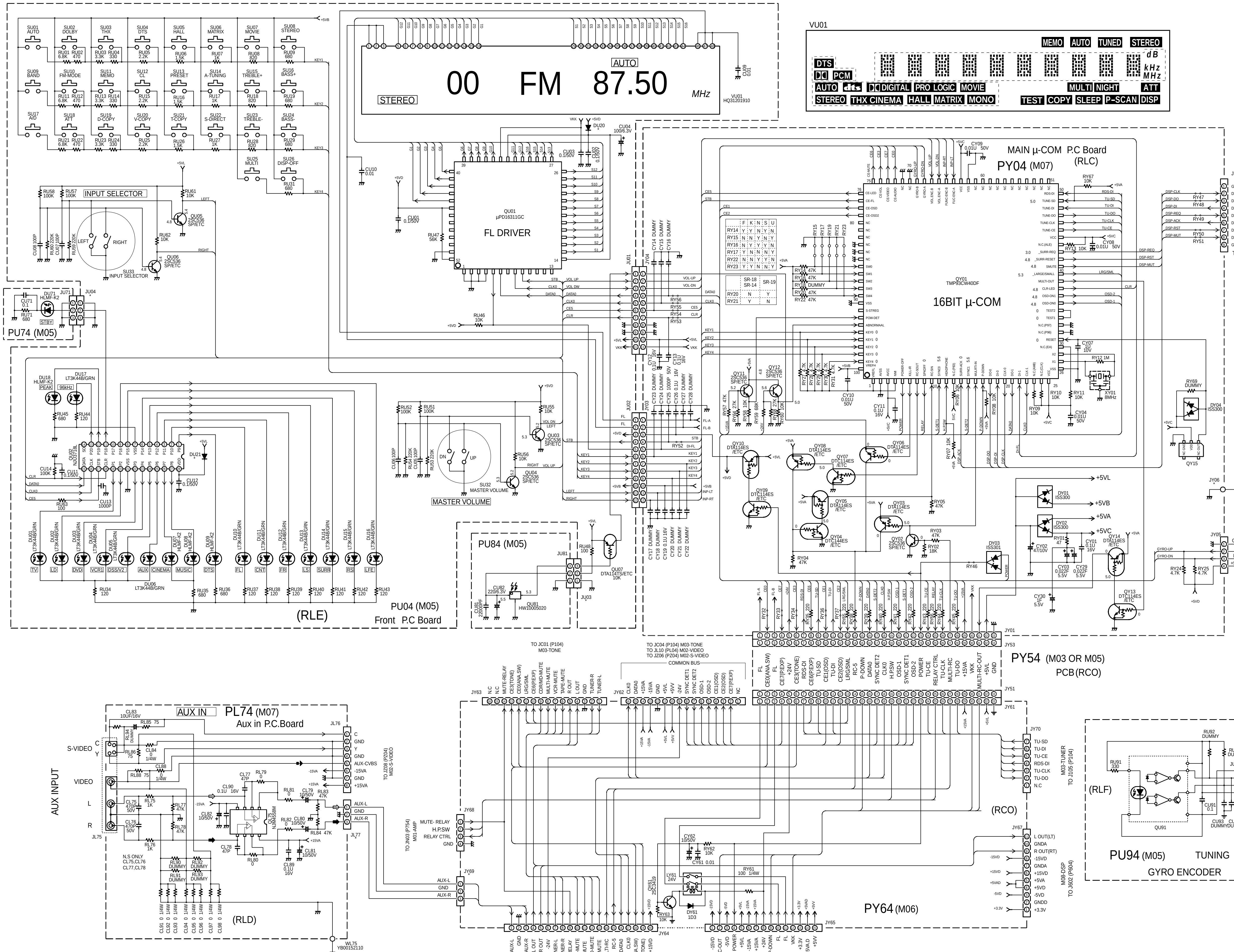
2. WIRING DIAGRAM

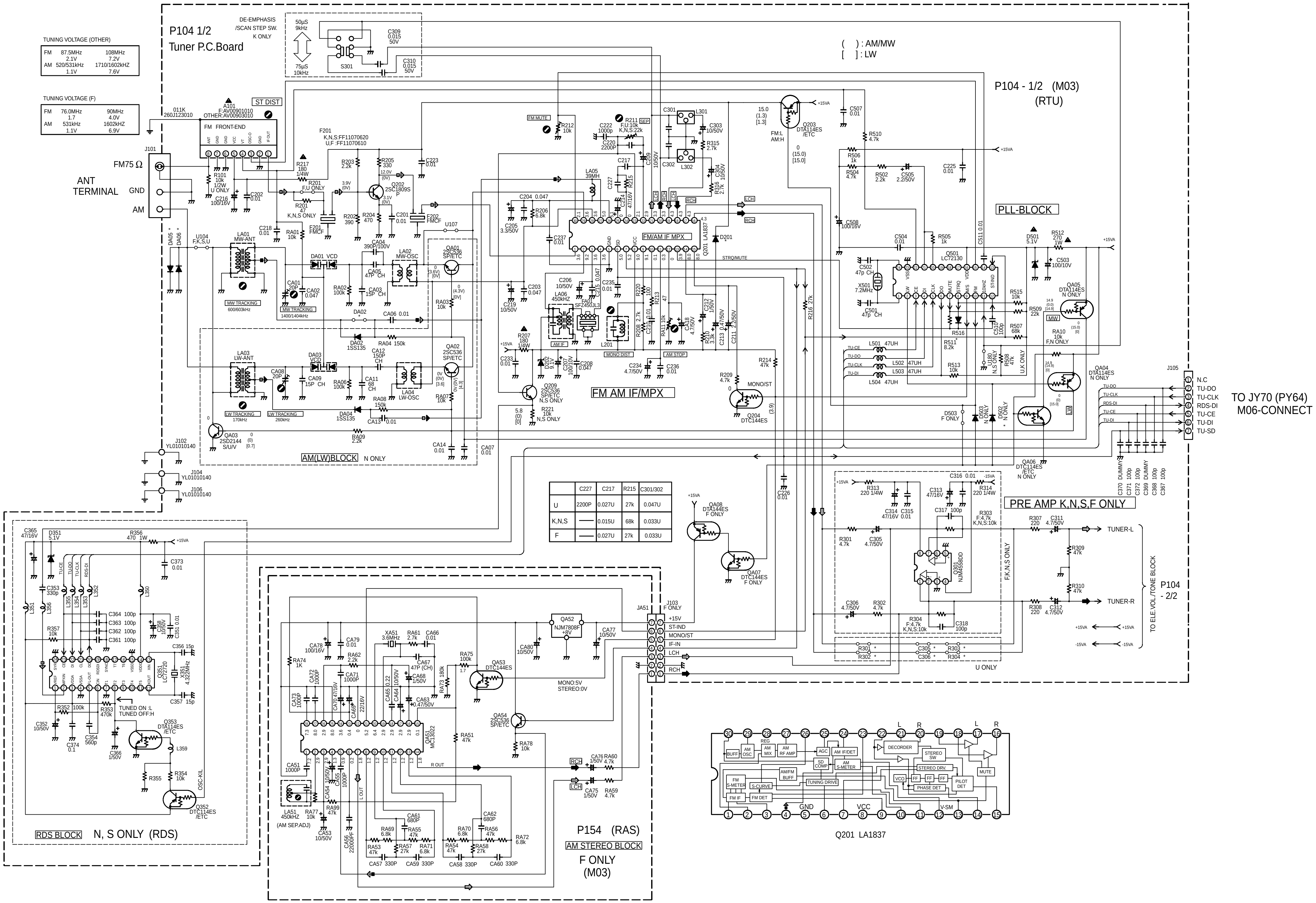


3. BLOCK DIAGRAM

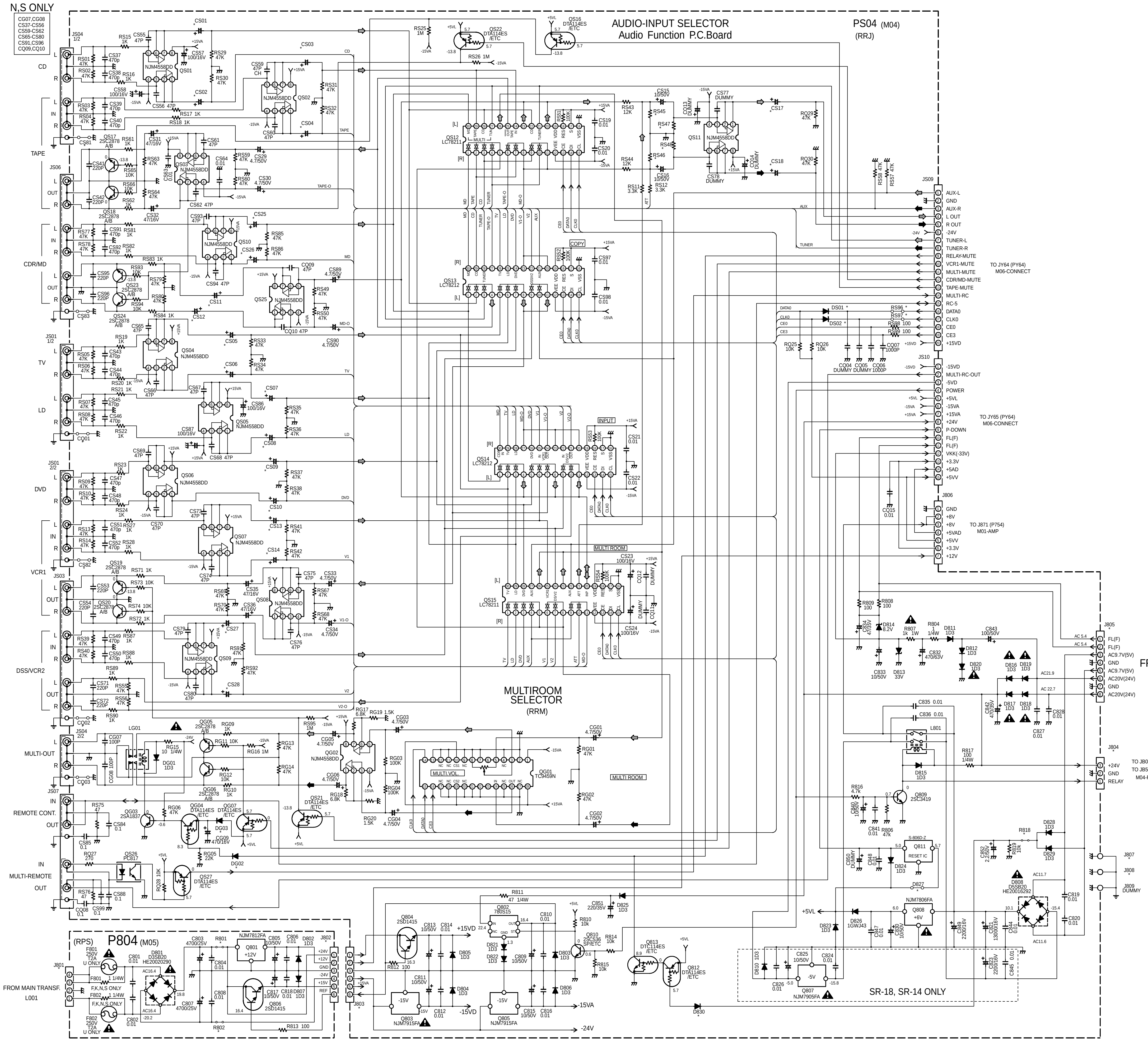


4. SCHEMATIC DIAGRAM

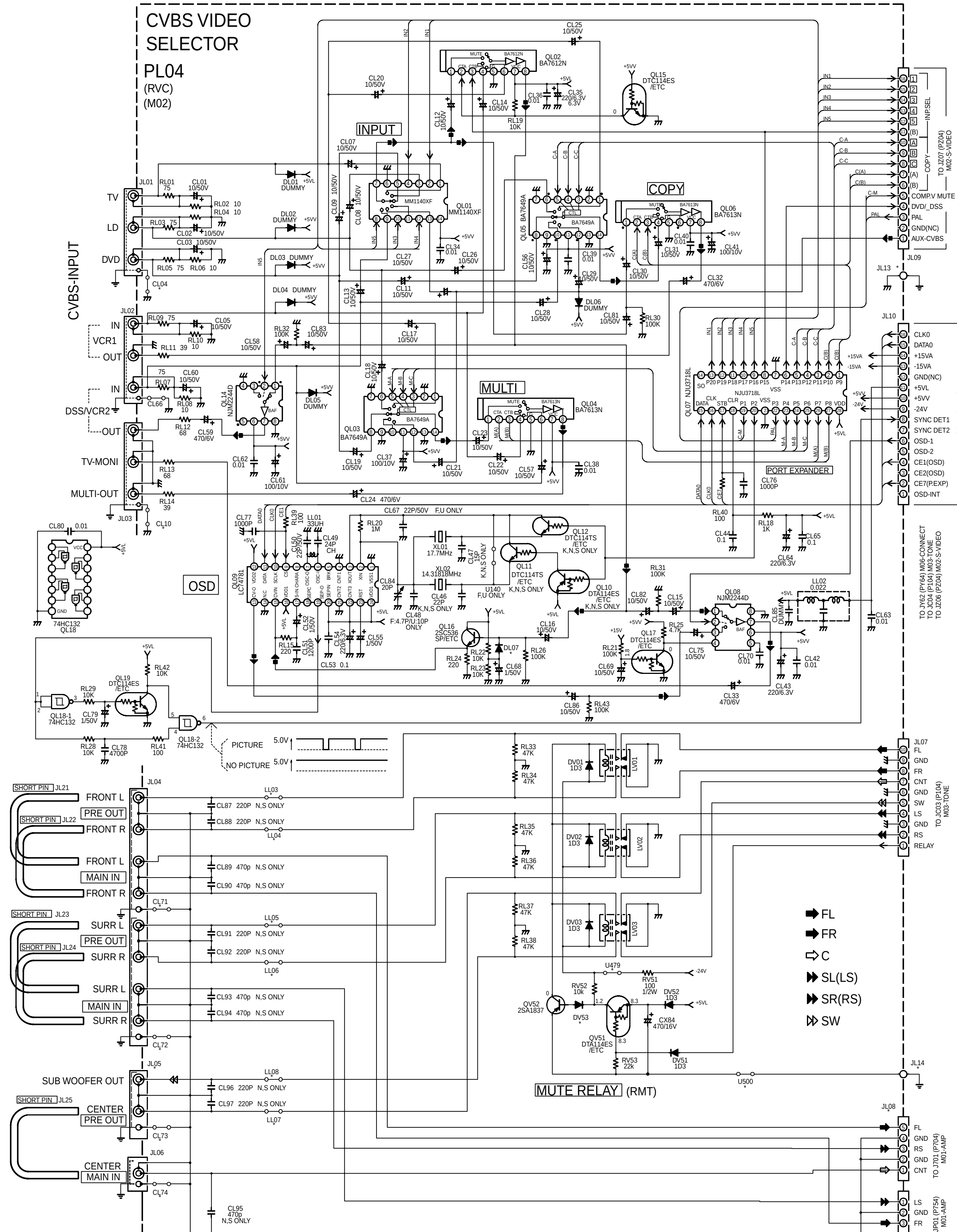


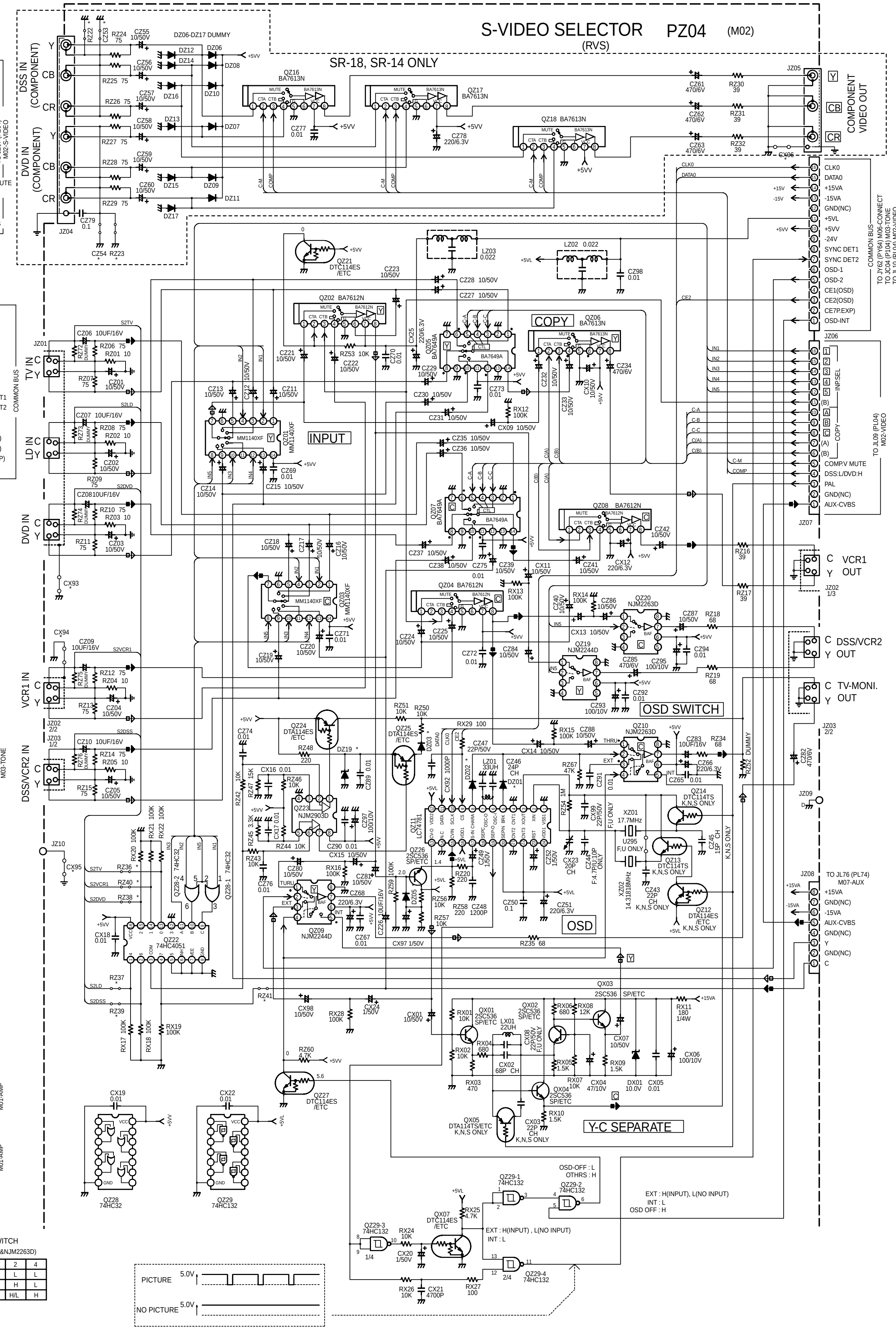


	C227	C217	R215	C301/302
U	2200P	0.027U	27k	0.047U
K,N,S	——	0.015U	68k	0.033U
F	——	0.027U	27k	0.033U



PCB	NO.	SR-18	SR-14	SR-19
PS04	RS45	6.8k	6.8k	5.6k
PS04	RS46	6.8k	6.8k	5.6k
PS04	RS47	100k	100k	27k
PS04	RS48	100k	100k	27k
PS04	CS01	47/16v	22/35v	47/16v
PS04	CS02	47/16v	22/35v	47/16v
PS04	CS03	47/16v	22/35v	47/16v
PS04	CS04	47/16v	22/35v	47/16v
PS04	CS05	47/16v	22/35v	47/16v
PS04	CS06	47/16v	22/35v	47/16v
PS04	CS07	47/16v	22/35v	47/16v
PS04	CS08	47/16v	22/35v	47/16v
PS04	CS09	47/16v	22/35v	47/16v
PS04	CS10	47/16v	22/35v	47/16v
PS04	CS13	47/16v	22/35v	47/16v
PS04	CS14	47/16v	22/35v	47/16v
PS04	CS17	47/16v	22/25v	47/16v
PS04	CS18	47/16v	22/25v	47/16v
PS04	CS25	47/16v	22/25v	47/16v
PS04	CS26	47/16v	22/25v	47/16v
PS04	CS27	47/16v	22/25v	47/16v
PS04	CS28	47/16v	22/25v	47/16v





TO JY62 (PY64) M06-CONNECT
TO JC04 (P104) M03-TONE
TO JL10 (PL04) M02-VIDEO
TO JZ06 (PZ04) M02-S-VIDEO

INPUT SELECTOR

	MM1140XD					7613
INPUT	1	2	3	4	5	(B)
TV	L	L	L	L	L	L
LD	H	L	L	L	L	L
DVD	L	H	L	L	L	L
AUX	H	H	H	H	L	L
DSS/V2	L	L	L	L	H	L
VCR1	L	L	H	L	L	H
STANDBY	L	L	L	L	L	L

COPY SWITCH

	BA7649			7613	
INPUT	A	B	C	(A)	(B)
TV	L	L	L	L	H
LD	L	H	L	L	H
DVD	H	L	L	L	H
DSS/VCR2	H	H	L	L	H
AUX	H	H	H	L	H
SOURCE	H	H	H	L	L
SOURCE(VCR1)	H	H	H	H	H

MULTI ROOM SELECTOR

	BA7649			7613	
INPUT	A	B	C	(A)	(B)
TV	L	L	L	L	L
LD	L	H	L	L	L
DVD	L	L	H	L	L
AUX	H	H	H	L	L
VCR1	H	H	H	L	H
DSS/VCR2	H	H	H	H	L
MULTI-OFF	H	H	H	H	H

COMPONENT VIDEO SWITCH

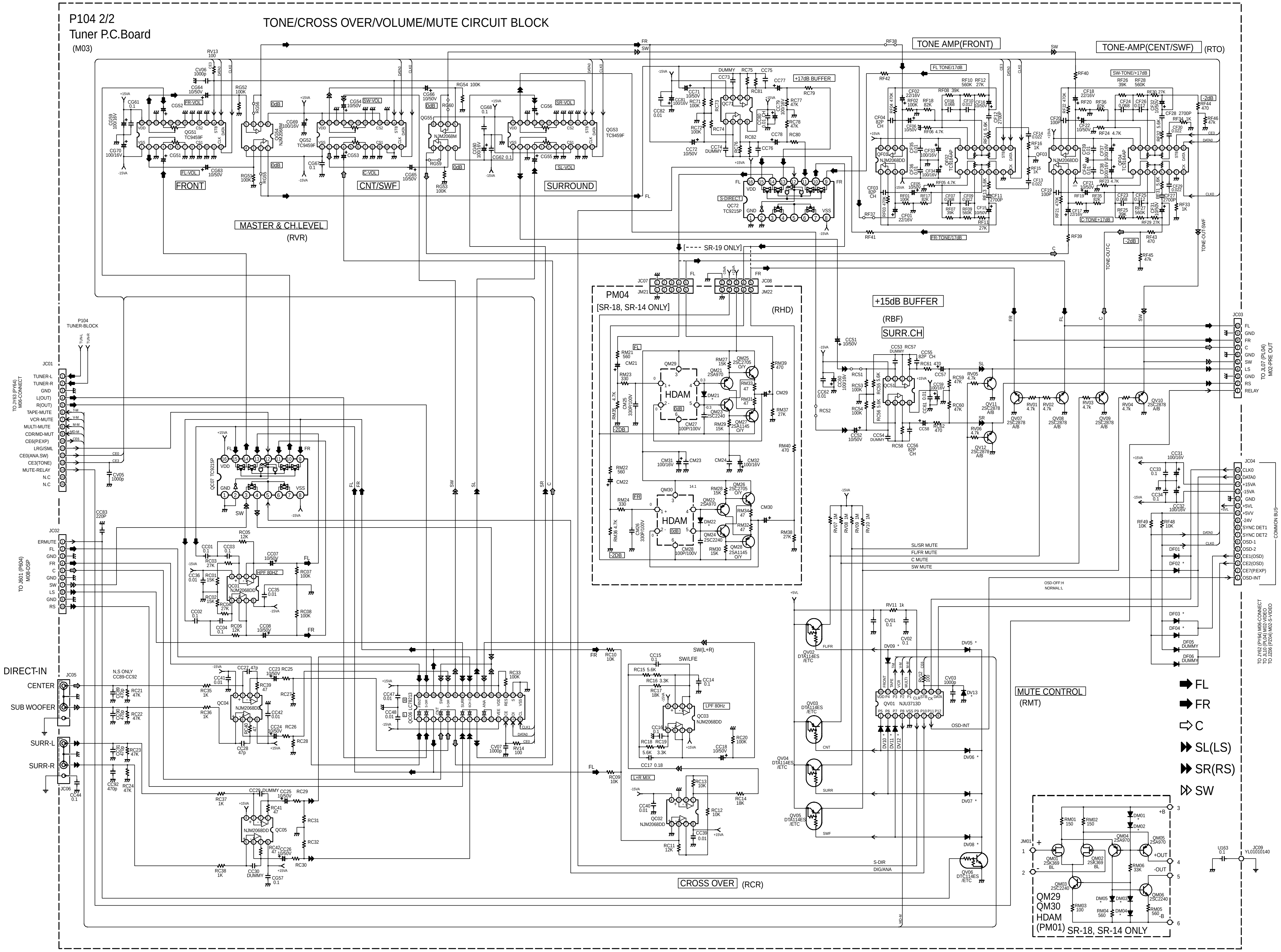
INP	B	MUTE(A)
DSS/V2	L	L
DVD	H	L
OTHERS	L	H

OTHERS:TV/VCR1/LD/AUX

OSD SWITCH
(NJM2244D&NJM2263D)

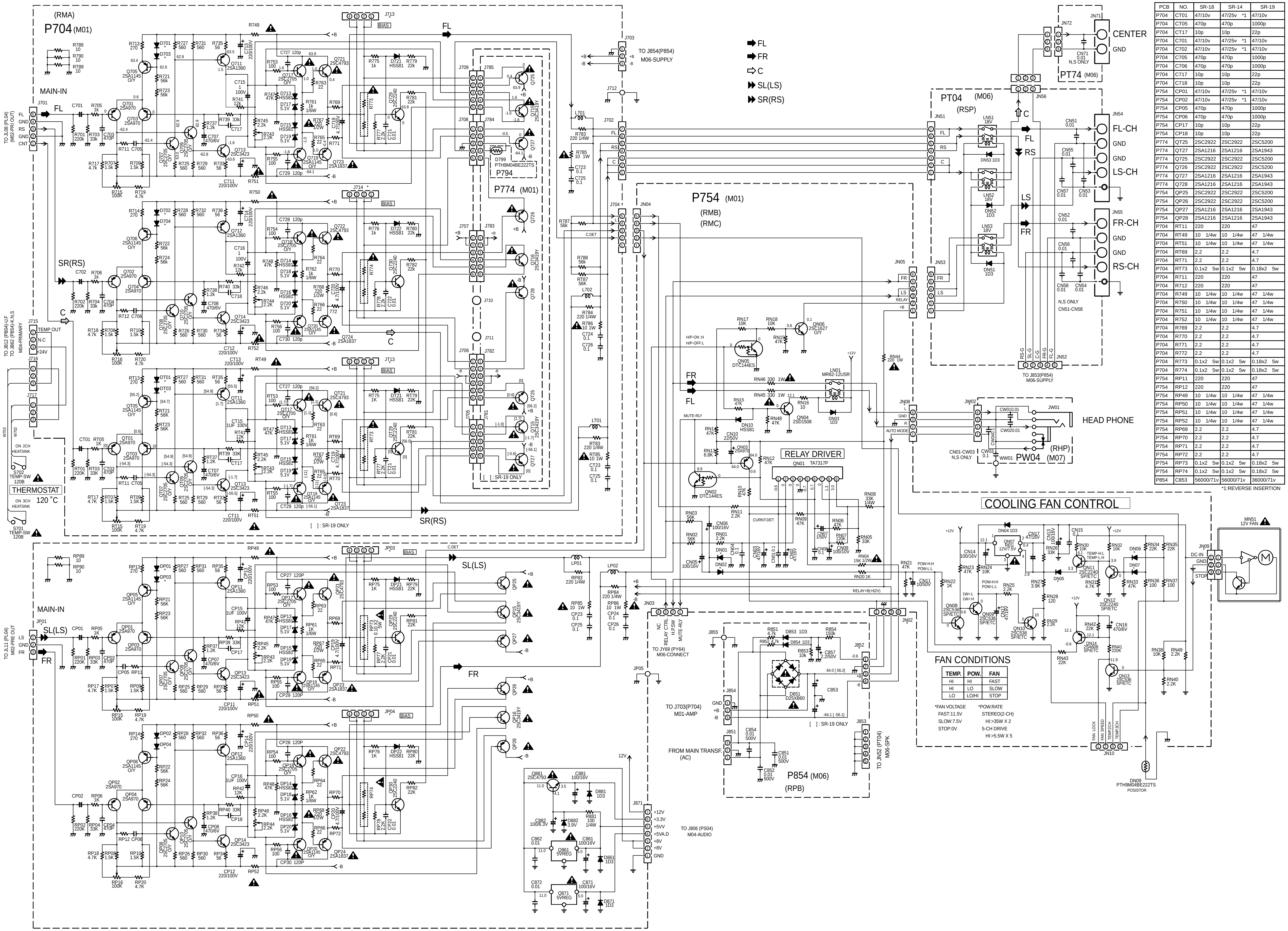
	2	4
THRU	L	L
OSD(EXT)	H	L
OSD(INT)	H/L	H

INPUT SELECTOR AND COPY SWITCH
:SAME DATA BETWEEN CVBS VIDEO AND S-VIDEO.
BA7612N/BA7613N
:SAME DATA BETWEEN BA7612N AND BA7613N



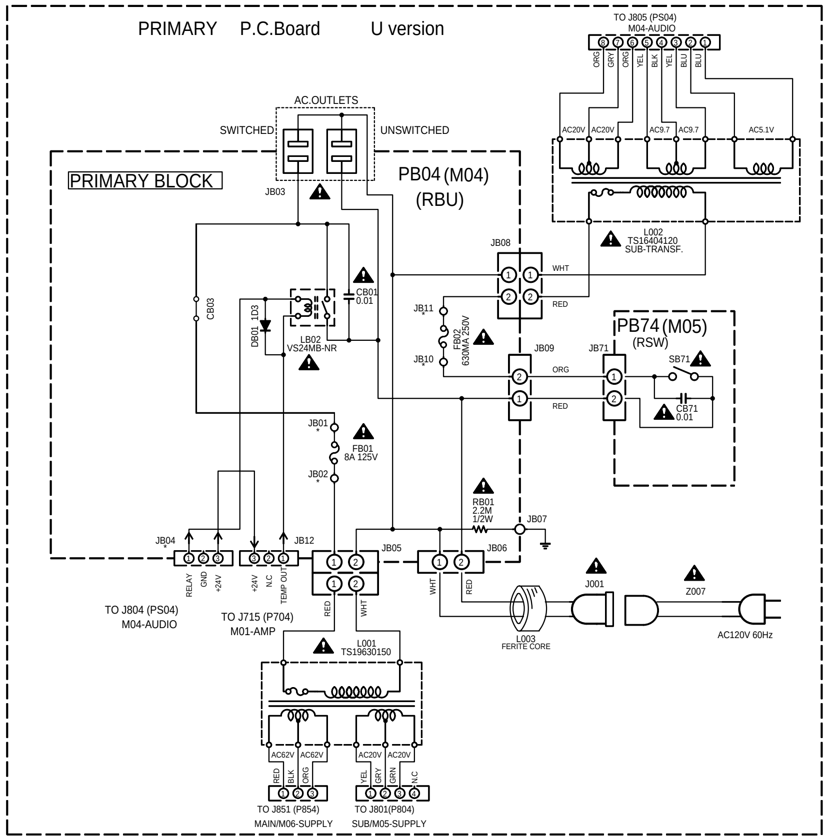
PCB	NO.	SR-18	SR-14	SR-19
P104	CC57	10/50v	10/16v	10/50v
P104	CC58	10/50v	10/16v	10/50v
P104	CC75	1000p	1000p	100p
P104	CC76	1000p	1000p	100p
P104	CC77	22/16v	22/16v	10/16v
P104	CC78	22/16v	22/16v	10/16v
P104	CG51	10/50v	22/25v	10/50v
P104	CG52	10/50v	22/25v	10/50v
P104	CG53	10/50v	22/25v	10/50v
P104	CG55	10/50v	22/25v	10/50v
P104	CG56	10/50v	22/25v	10/50v
P104	QC51	NJM2068DD	NJM2114D	NJM2068DD
P104	QC71	NJM2068DD	NJM2068DD	NJM2114D
P104	RC25	1k	1k	2.2k
P104	RC26	1k	1k	2.2k
P104	RC27	3.3k	3.3k	4.7k
P104	RC28	3.3k	3.3k	4.7k
P104	RC29	1k	1k	2.2k
P104	RC30	1k	1k	2.2k
P104	RC31	3.3k	3.3k	4.7k
P104	RC32	3.3k	3.3k	4.7k
P104	RC57	27k	27k	33k
P104	RC58	27k	27k	33k
P104	RC73	220	220	2.2k
P104	RC74	220	220	2.2k
P104	RC75	2.7k	2.7k	22k
P104	RC76	2.7k	2.7k	22k
P104	RC79	220	220	330
P104	RC80	220	220	330
P104	RC81	2.7k	2.7k	33k
P104	RC82	2.7k	2.7k	33k
P104	RF19	3.3k	3.3k	100k
P104	RF20	3.3k	3.3k	100k
P104	RF39	560	560	JUMPER
P104	RF40	560	560	JUMPER
P104	RF41	220	220	330
P104	RF42	220	220	330
PM04	CM21	22/16v	JUMPER	NON
PM04	CM22	22/16v	JUMPER	NON
PM04	CM23	0.01	NON	NON
PM04	CM24	0.01	NON	NON
PM04	CM29	10/50v	47/16v *1	NON
PM04	CM30	10/50v	47/16v *1	NON

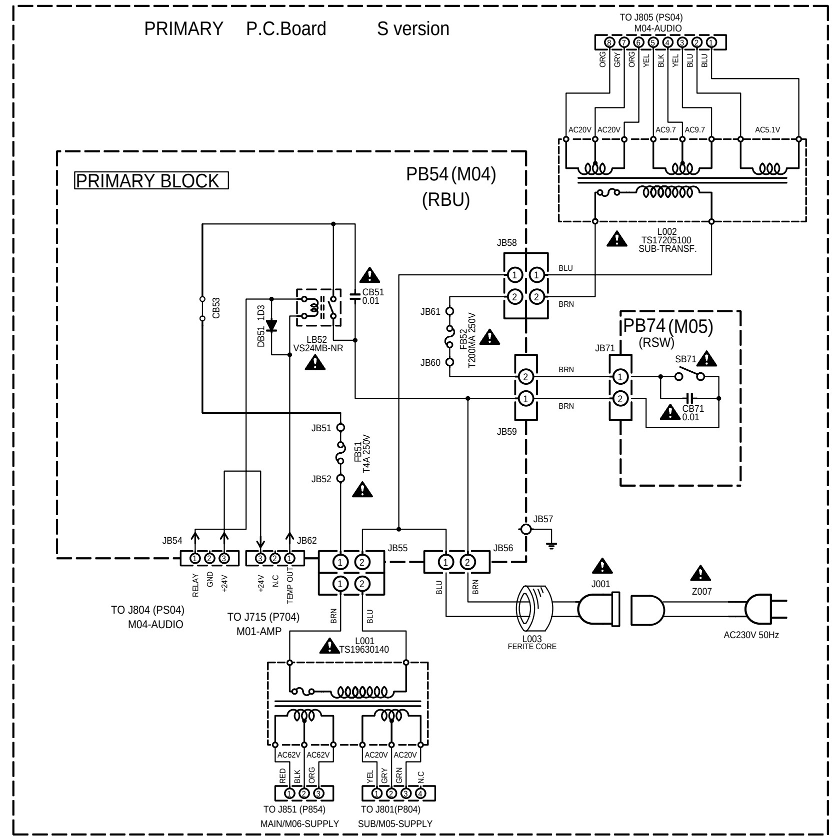
*1 : REVERSE INSERTION

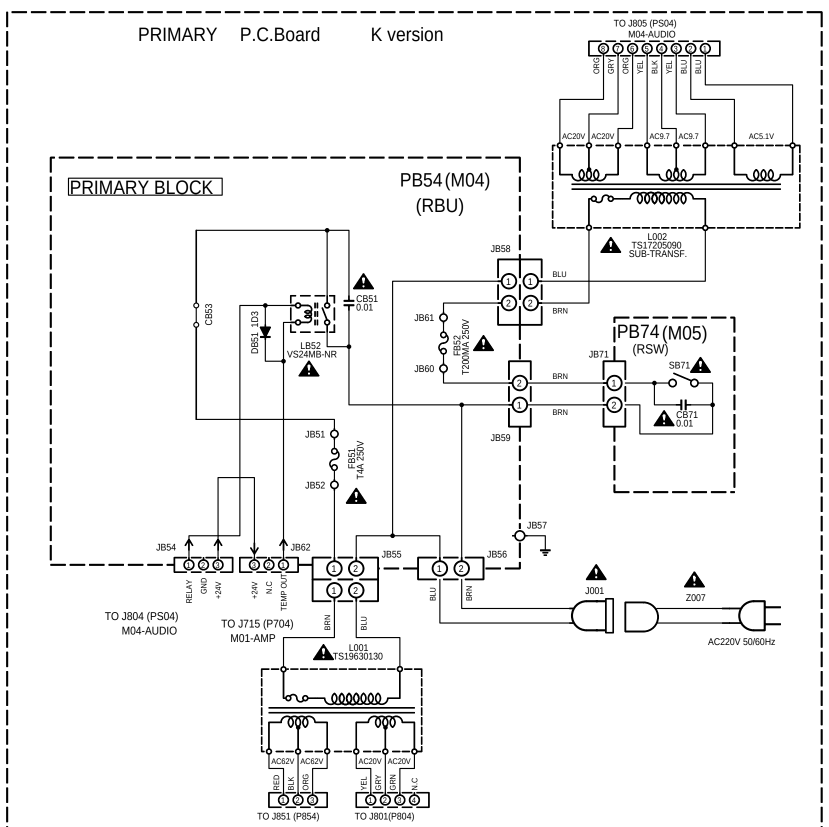


PCB	NO.	SR-18	SR-14	SR-19
P704	CT01	47/10v	47/25v *1	47/10v
P704	CT05	470p	470p	1000p
P704	CT17	10p	10p	22p
P704	C701	47/10v	47/25v *1	47/10v
P704	C702	47/10v	47/25v *1	47/10v
P704	C705	470p	470p	1000p
P704	C706	470p	470p	1000p
P704	C717	10p	10p	22p
P704	C718	10p	10p	22p
P754	CP01	47/10v	47/25v *1	47/10v
P754	CP02	47/10v	47/25v *1	47/10v
P754	CP05	470p	470p	1000p
P754	CP06	470p	470p	1000p
P754	CP17	10p	10p	22p
P754	CP18	10p	10p	22p
P774	QT25	2SC2922	2SC2922	2SC5200
P774	QT27	2SA1216	2SA1216	2SA1943
P774	Q725	2SC2922	2SC2922	2SC5200
P774	Q726	2SC2922	2SC2922	2SC5200
P774	Q727	2SA1216	2SA1216	2SA1943
P774	Q728	2SA1216	2SA1216	2SA1943
P754	QP25	2SC2922	2SC2922	2SC5200
P754	QP26	2SC2922	2SC2922	2SC5200
P754	QP27	2SA1216	2SA1216	2SA1943
P754	QP28	2SA1216	2SA1216	2SA1943
P704	RT11	220	220	47
P704	RT49	10 1/4w	10 1/4w	47 1/4w
P704	RT51	10 1/4w	10 1/4w	47 1/4w
P704	RT69	2.2	2.2	4.7
P704	RT71	2.2	2.2	4.7
P704	RT73	0.1x2 5w	0.1x2 5w	0.18x2 5w
P704	R711	220	220	47
P704	R712	220	220	47
P704	R749	10 1/4w	10 1/4w	47 1/4w
P704	R750	10 1/4w	10 1/4w	47 1/4w
P704	R751	10 1/4w	10 1/4w	47 1/4w
P704	R752	10 1/4w	10 1/4w	47 1/4w
P704	R769	2.2	2.2	4.7
P704	R770	2.2	2.2	4.7
P704	R771	2.2	2.2	4.7
P704	R772	2.2	2.2	4.7
P704	R773	0.1x2 5w	0.1x2 5w	0.18x2 5w
P704	R774	0.1x2 5w	0.1x2 5w	0.18x2 5w
P754	RP11	220	220	47
P754	RP12	220	220	47
P754	RP49	10 1/4w	10 1/4w	47 1/4w
P754	RP50	10 1/4w	10 1/4w	47 1/4w
P754	RP51	10 1/4w	10 1/4w	47 1/4w
P754	RP52	10 1/4w	10 1/4w	47 1/4w
P754	RP69	2.2	2.2	4.7
P754	RP70	2.2	2.2	4.7
P754	RP71	2.2	2.2	4.7
P754	RP72	2.2	2.2	4.7
P754	RP73	0.1x2 5w	0.1x2 5w	0.18x2 5w
P754	RP74	0.1x2 5w	0.1x2 5w	0.18x2 5w
P854	C853	56000/71v	56000/71v	36000/71v

*1:REVERSE INSERTION

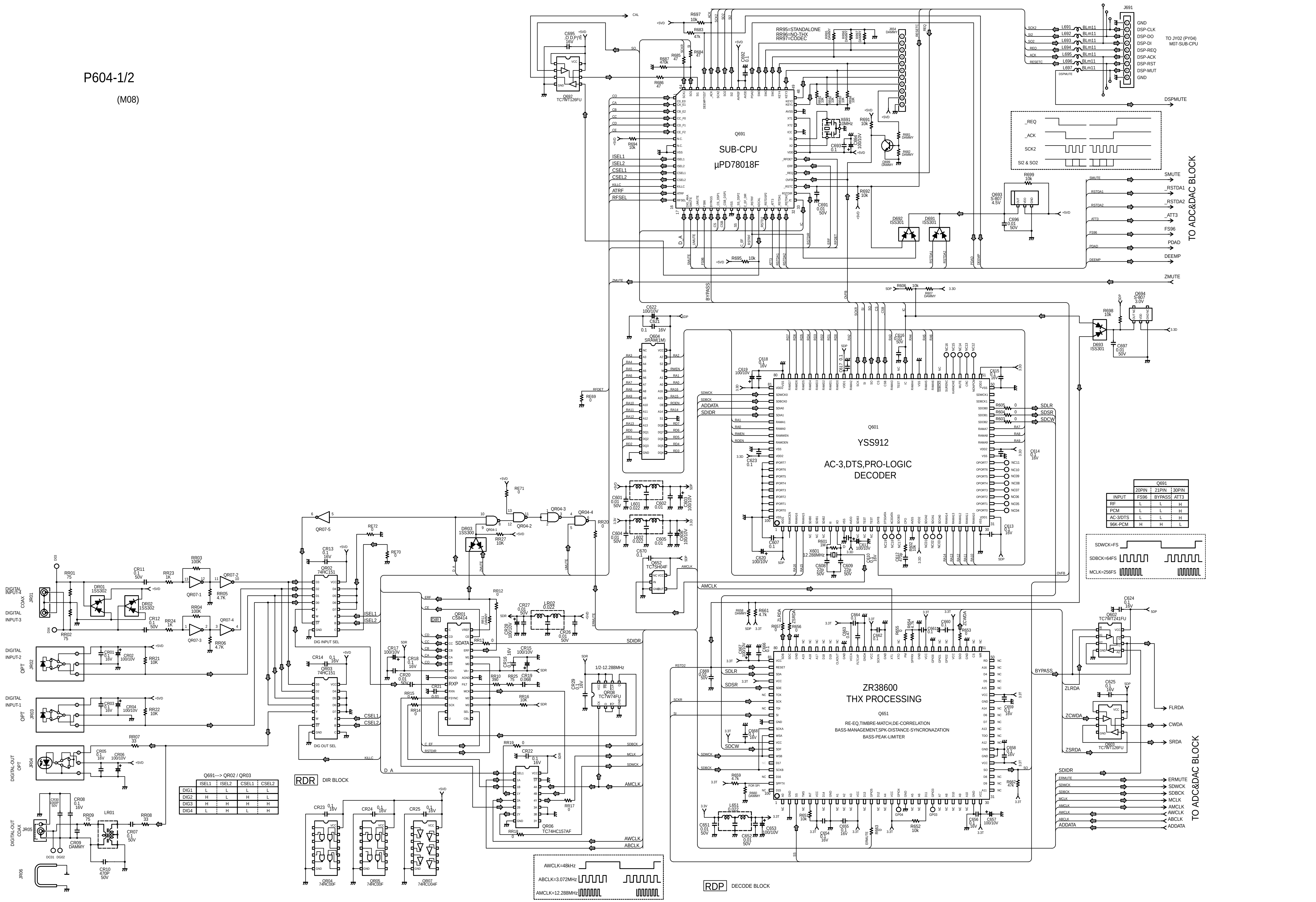

PRIMARY P.C.Board U version
TO J805 (PS04)
M04-AUDIO
AC.OUTLETS
SWITCHED
UNSWITCHED
PRIMARY BLOCK
PB04 (M04)
(RBU)
L002
TS16404120
SUB-TRANSF.
PB74 (M05)
(RSW)
FB01
8A 125V
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
L001
TS19630150
L003
FERITE CORE
AC120V 60Hz
TO J851 (P854)
MAIN/M06-SUPPLY
TO J801(P804)
SUB/M05-SUPPLY


PRIMARY P.C.Board S version
TO J805 (PS04)
M04-AUDIO
PRIMARY BLOCK
PB54 (M04)
(RBU)
L002
TS17205100
SUB-TRANSF.
PB74 (M05)
(RSW)
FB51
T4A 250V
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
L001
TS19630140
L003
FERITE CORE
AC230V 50Hz
TO J851 (P854)
MAIN/M06-SUPPLY
TO J801(P804)
SUB/M05-SUPPLY


PRIMARY P.C.Board K version
TO J805 (PS04)
M04-AUDIO
PRIMARY BLOCK
PB54 (M04)
(RBU)
L002
TS17205090
SUB-TRANSF.
PB74 (M05)
(RSW)
FB51
T4A 250V
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
L001
TS19630130
AC220V 50/60Hz
TO J851 (P854)
MAIN/M06-SUPPLY
TO J801(P804)
SUB/M05-SUPPLY

P604-1/2

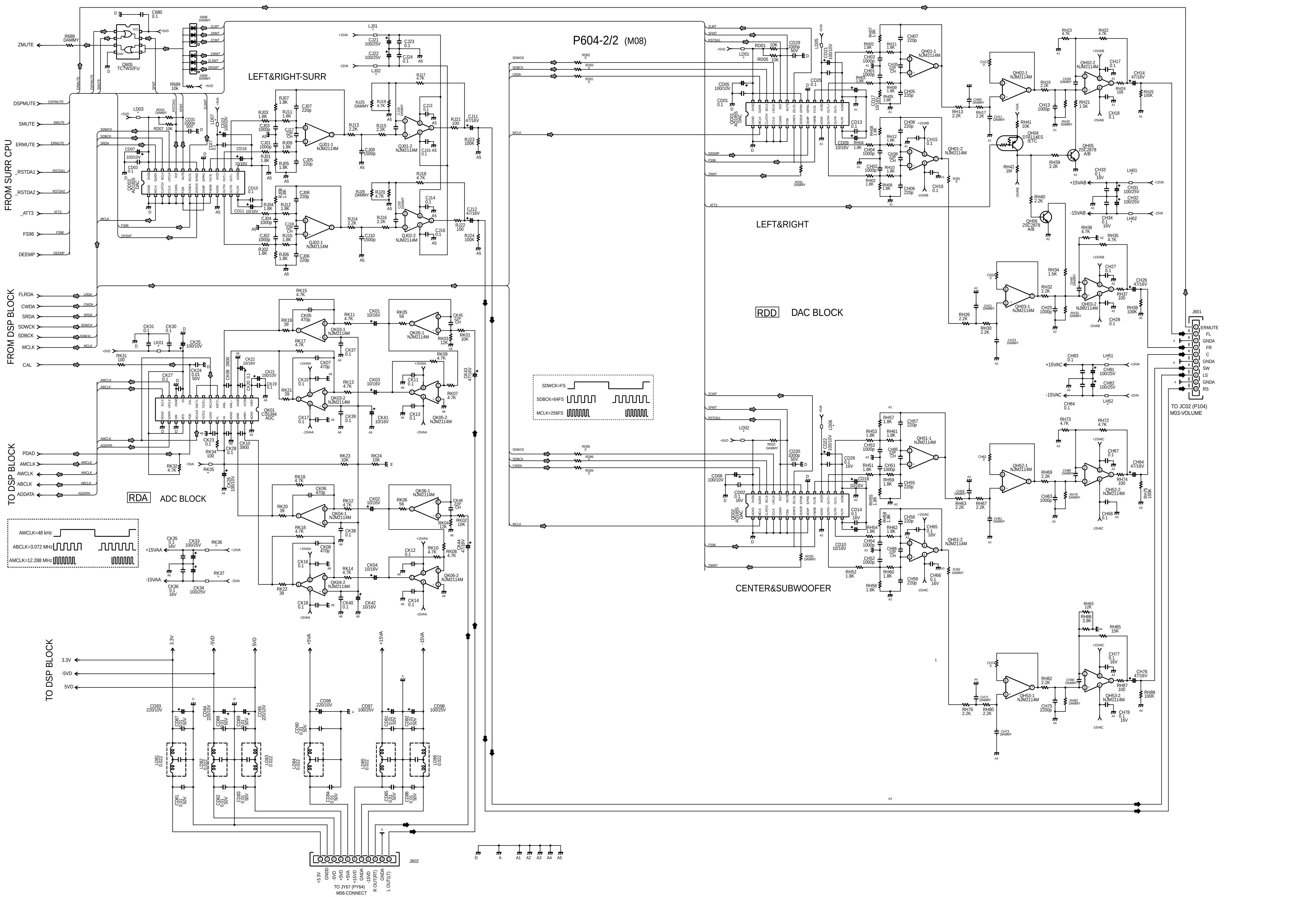
(M08)



Q691---> QR02 / QR03

	ISEL1	ISEL2	CSEL1	CSEL2
DIG1	L	L	L	L
DIG2	H	L	H	L
DIG3	H	H	H	H
DIG4	L	H	L	H

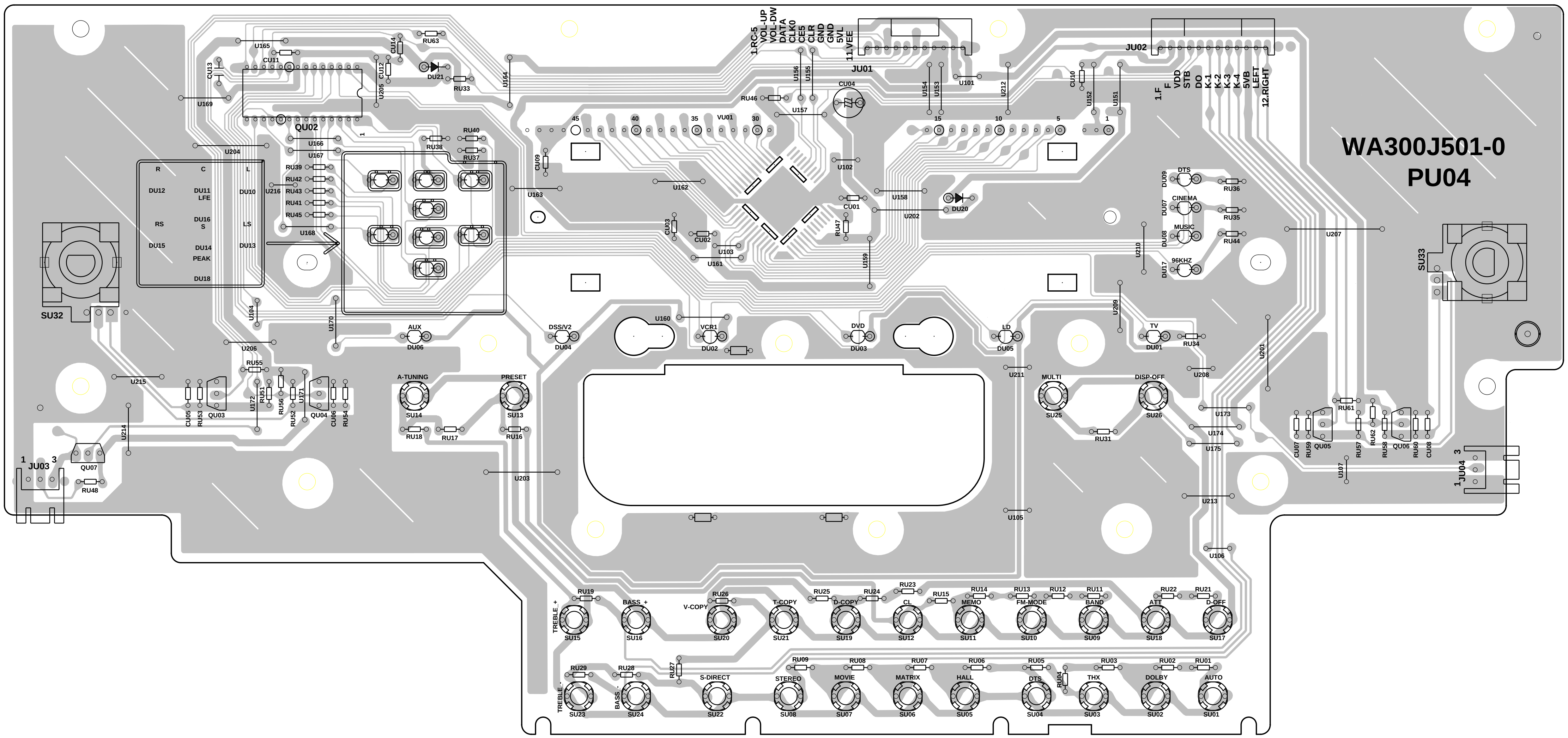
	Q691		
	20PIN	21PIN	30PIN
INPUT	FS96	BYPASS	ATT3
RF	L	L	H
PCM	L	L	H
AC-3/DTS	L	L	H
96K-PCM	H	H	L


P604-2/2 (M08)
LEFT&RIGHT-SURR
LEFT&RIGHT
CENTER&SUBWOOFER
RDA ADC BLOCK
RDD DAC BLOCK
FROM SURR CPU
FROM DSP BLOCK
TO DSP BLOCK
TO DSP BLOCK
ZMUTE
DSPMUTE
SMUTE
ERMUTE
_RSTDA1
_RSTDA2
_ATT3
FS96
DEEMP
FLRDA
CWDA
SRDA
SDWCK
SDBCK
MCLK
CAL
PDAD
AMCLK
AWCLK
ABCLK
ADDATA
3.3V
-5VD
5VD
AWCLK=48 kHz
ABCLK=3.072 MHz
AMCLK=12.288 MHz
SDWCK=FS
SDBCK=64FS
MCLK=256FS
J601
TO JC02 (P104)
M03-VOLUME
J602
TO JY67 (PY64)
M06-CONNECT
Q605
TC7W32FU
QK01
CS5394
ADC
QD01
AD1855
DAC
QD02
AD1855
DAC
QD03
AD1855
DAC
+15VAA
-15VAA
+15VAB
-15VAB
+15VAC
-15VAC

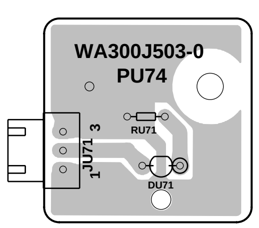
5. PARTS LOCATION (Pattern Side)

PU04

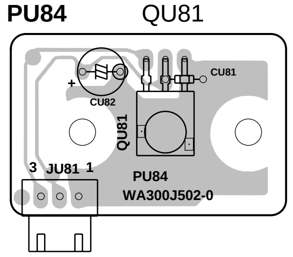
QU07 QU03 QU02 QU04 QU01 QU05 QU06



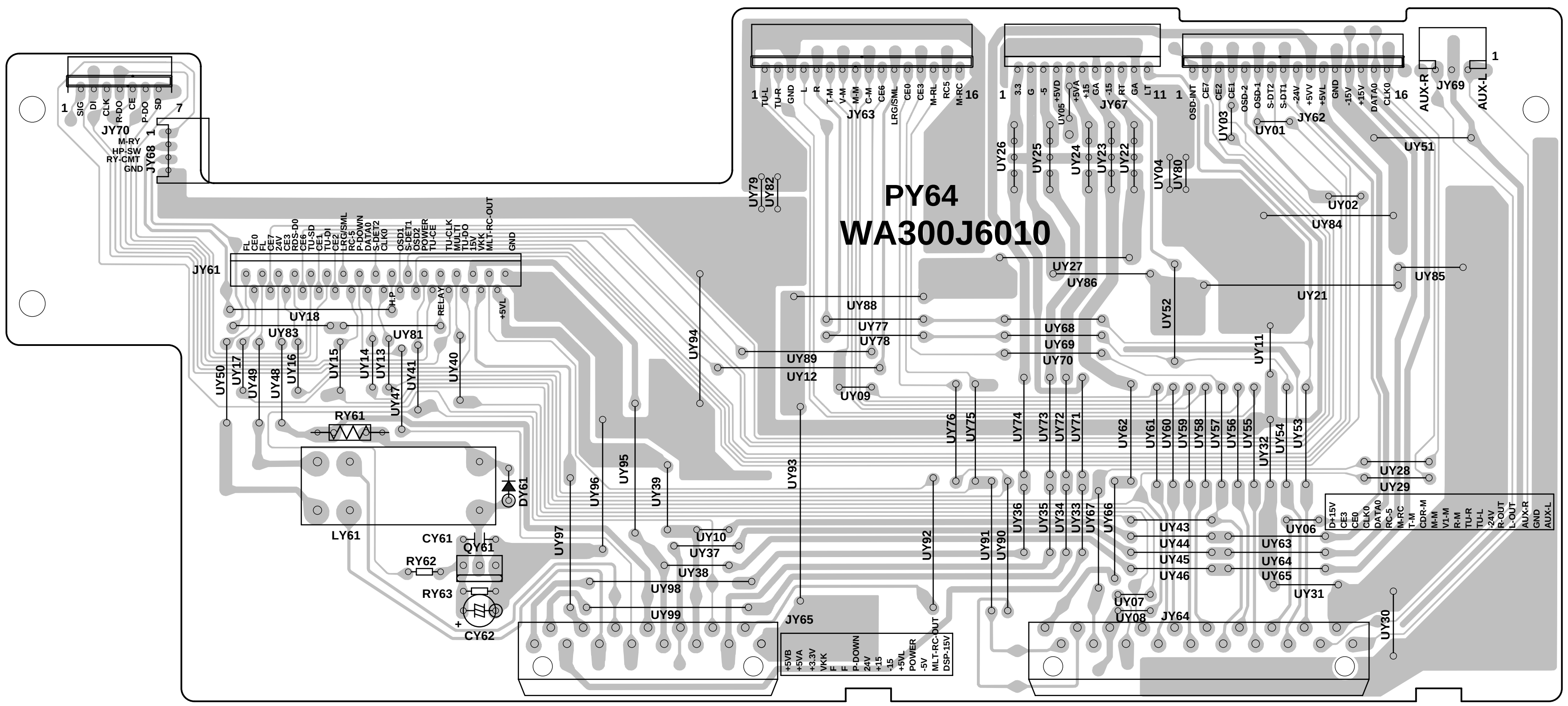
PU74



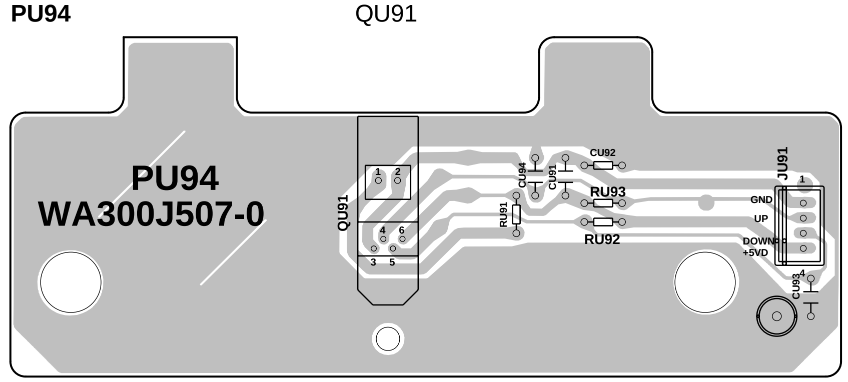
PU84 QU81



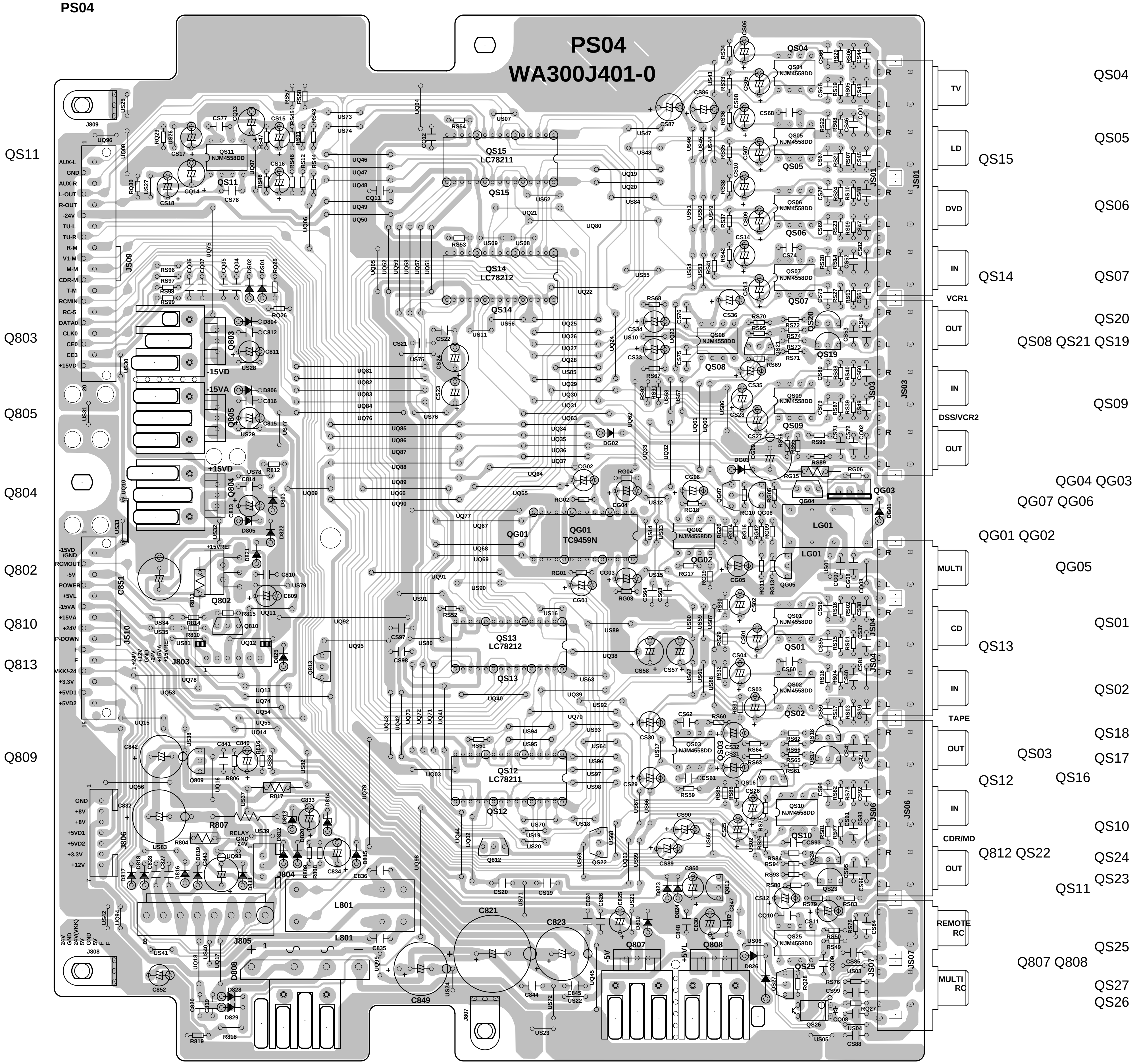
PY64 QY61



PU94 QU91

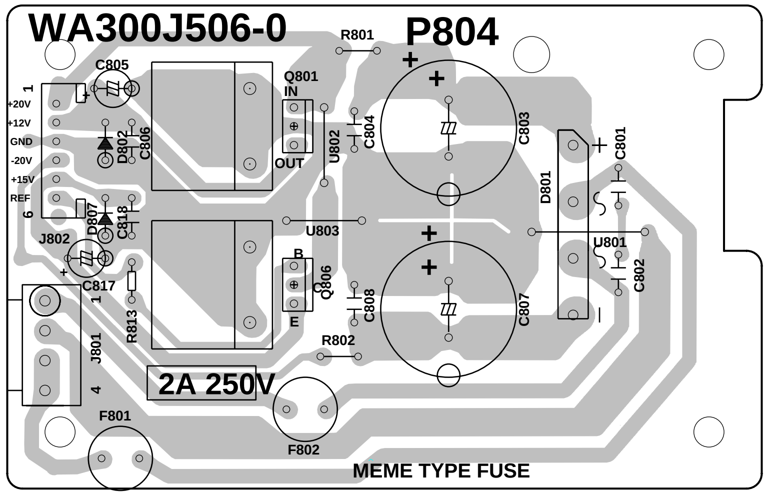


PS04

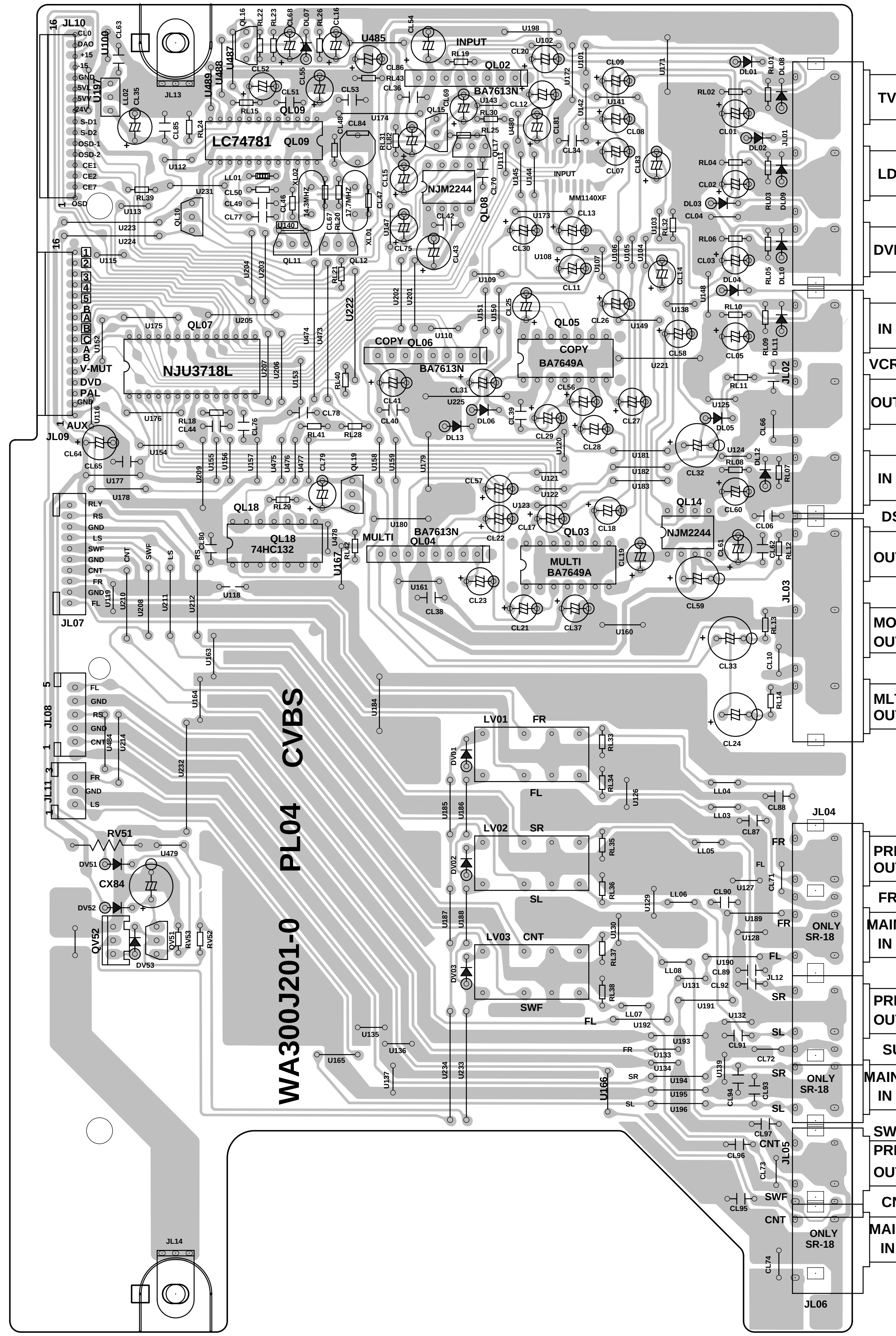

PS04
WA300J401-0
QS04
QS05
QS15
QS06
QS14
QS07
QS20
QS08 QS21 QS19
QS09
QG04 QG03
QG07 QG06
QG01 QG02
QG05
QS01
QS13
QS02
QS18
QS03
QS17
QS12
QS16
QS10
Q812 QS22
QS24
QS23
QS11
QS25
Q807 Q808
QS27
QS26
QS11
Q803
Q805
Q804
Q802
Q810
Q813
Q809
TV
LD
DVD
IN
VCR1
OUT
DSS/VCR2
MULTI
CD
TAPE
CDR/MD
REMOTE RC
MULTI RC

P804

Q801
Q806

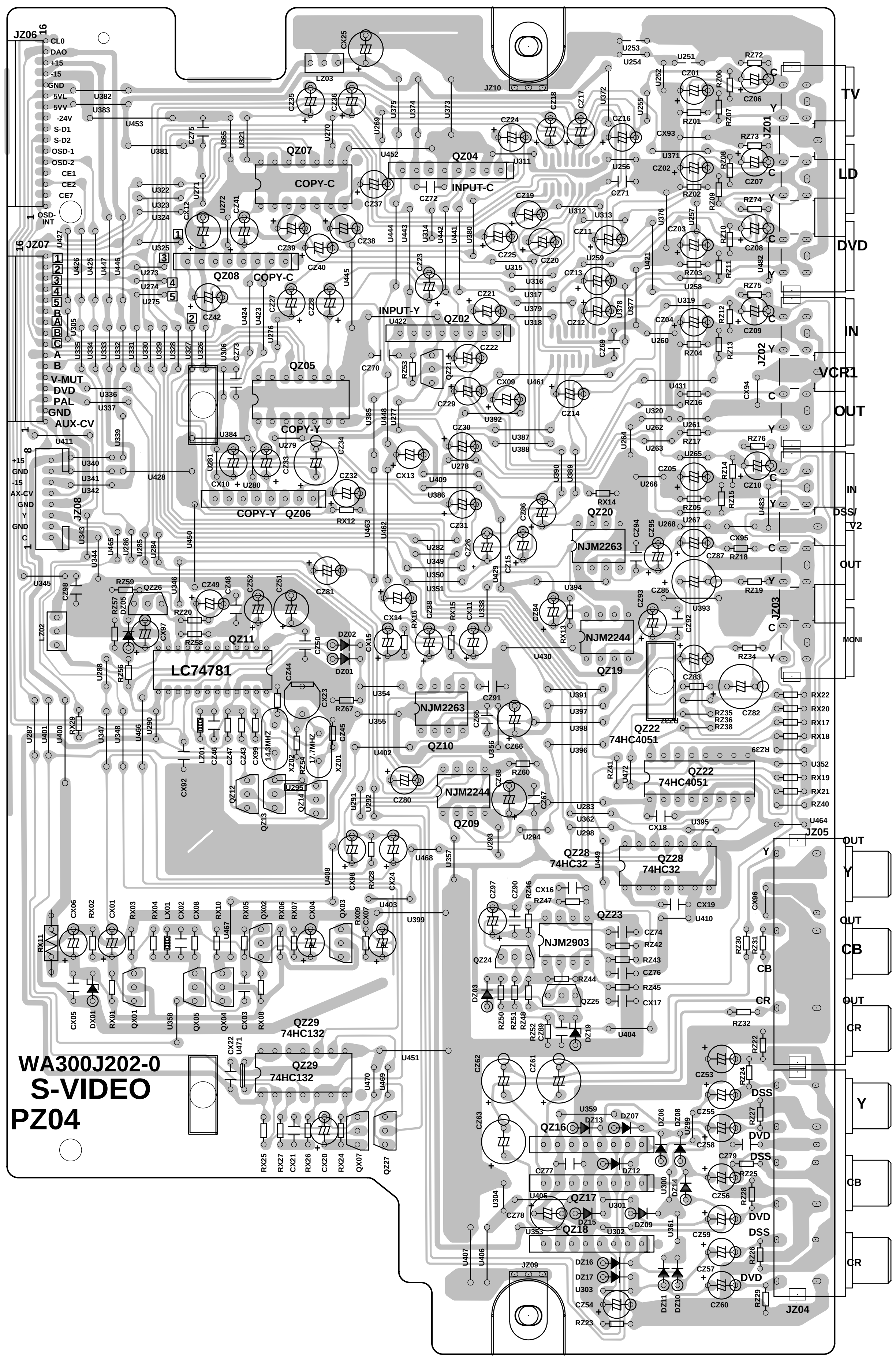


PL04



QL16
QL02
QL09 QL15 QL17
QL08
QL10
QL11 QL12
QL07 QL06 QL05
QL19
QL14
QL18 QL04 QL03
QV52 QV51

PZ04



QZ07 QZ04

QZ08

QZ02

QZ21

QZ05

QZ06

QZ20

QZ26

QZ19

QZ11

QZ10

QZ22

QZ12 QZ13 QZ14 QZ09

QZ28

QX02 QX03 QZ23

QZ24

QX01 QX05 QX04 QZ25

QZ29

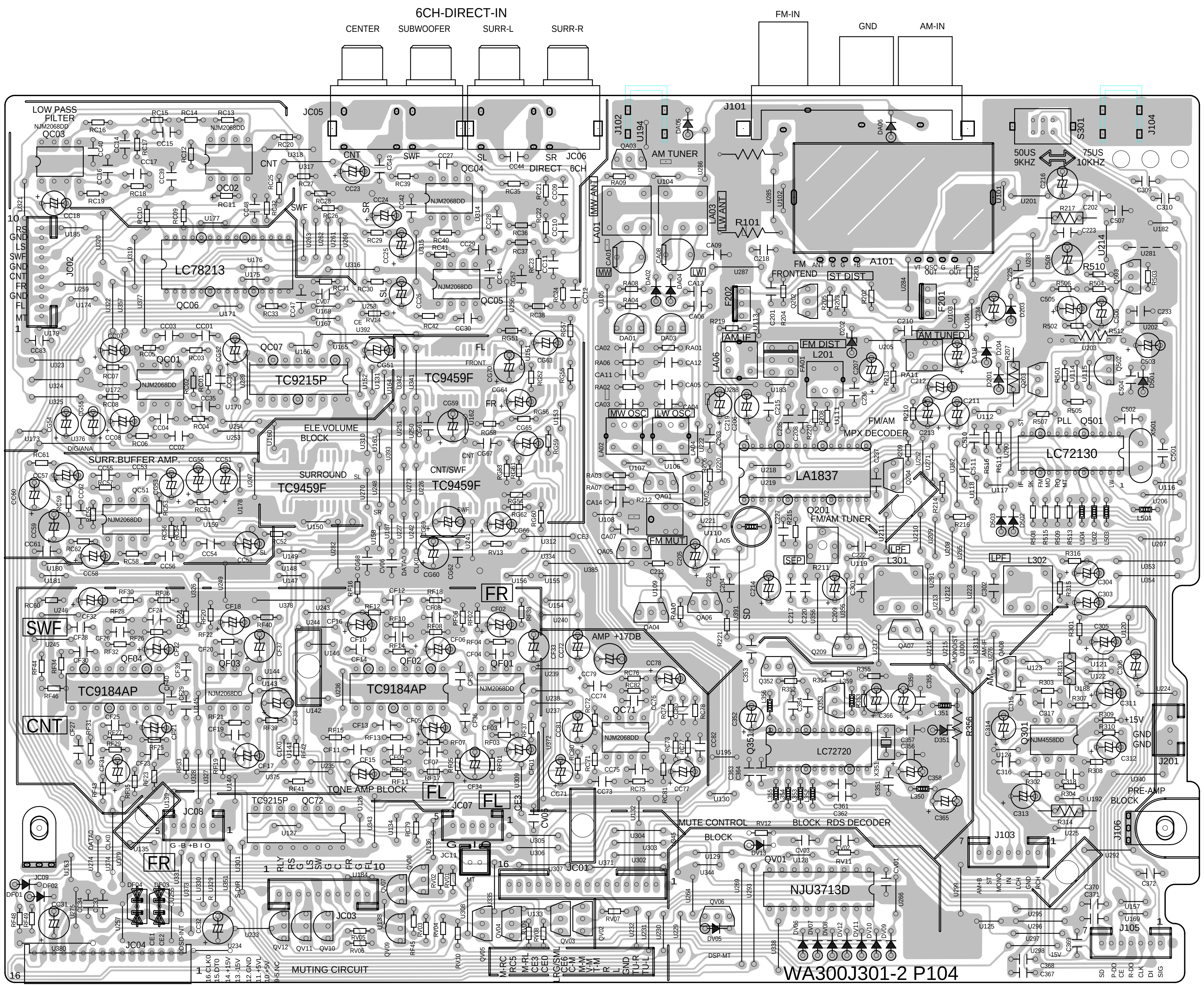
QX07 QX27 QZ16

QZ17

QZ18

P104

QC03 QC02 QC04 QA03 Q202 Q503
QC01 QC06 QC07 QC05 QG51 Q201 Q204 Q203 Q502
QC51 QG53 QF02 QG52 QF01 QA05 QA01 QA02 Q352 Q353 Q209 QA07 QA08 Q501
QF04 QF03 QC72 QV07 QV08 QC71 QA04 QA06 Q301
QV12 QV11 QV10 QV09 QV05 QV04 QV03 QV02 QV06 QV01



P704

QT03 QT01
QT09 QT13
QT19 QT23

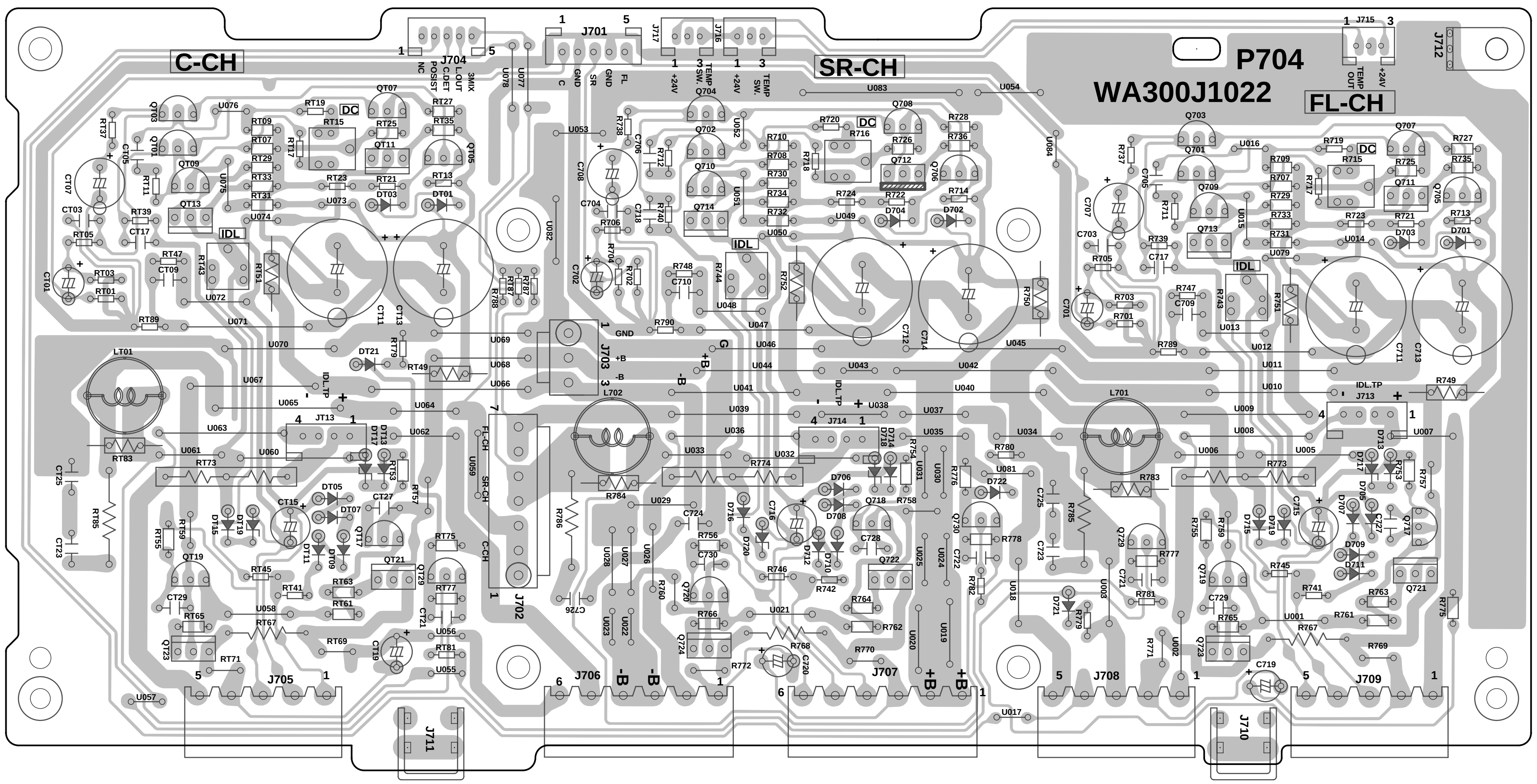
QT07
QT11 QT05
QT17 QT21 QT29

Q704 Q702
Q710 Q714
Q720 Q724

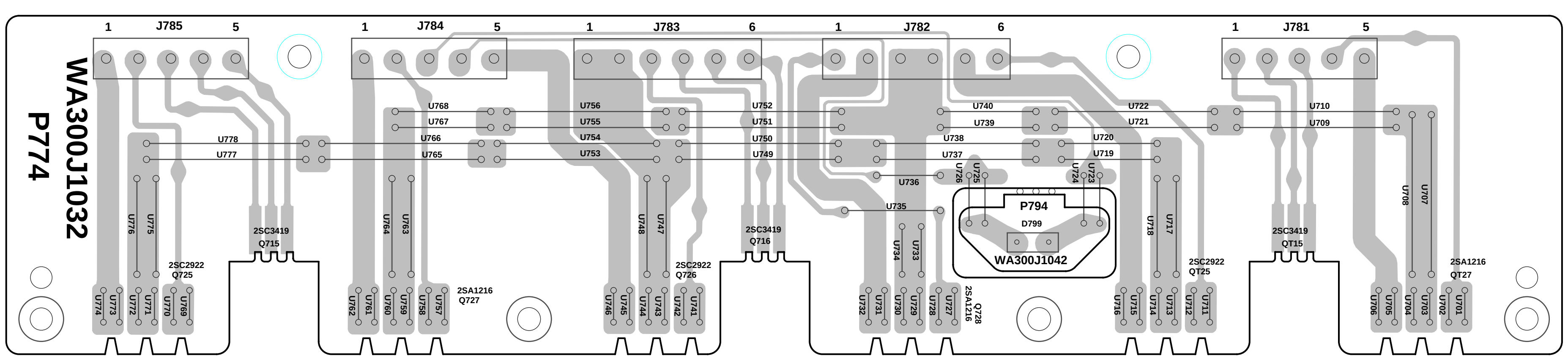
Q708
Q712 Q706
Q718 Q722 Q730

Q703 Q701
Q709 Q713
Q728 Q719

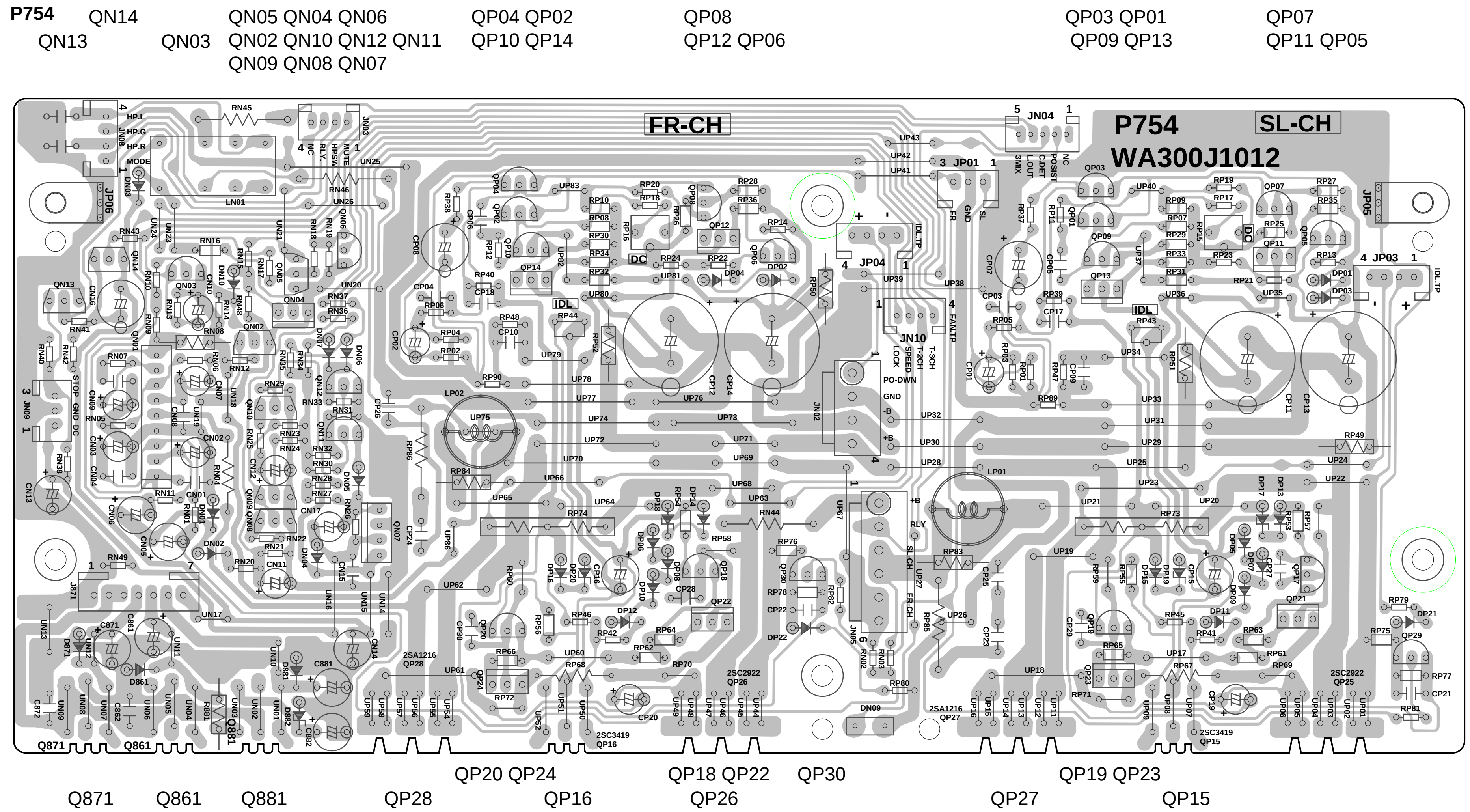
Q707
Q711 Q705
Q717 Q721

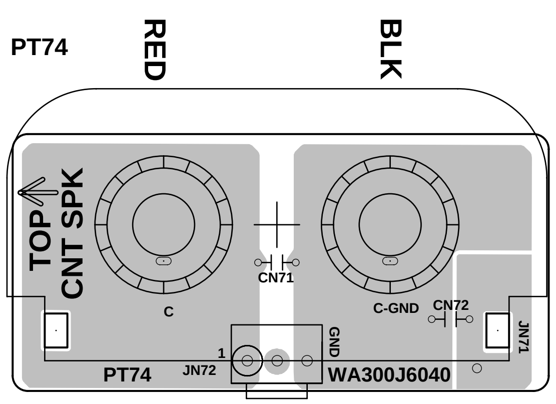


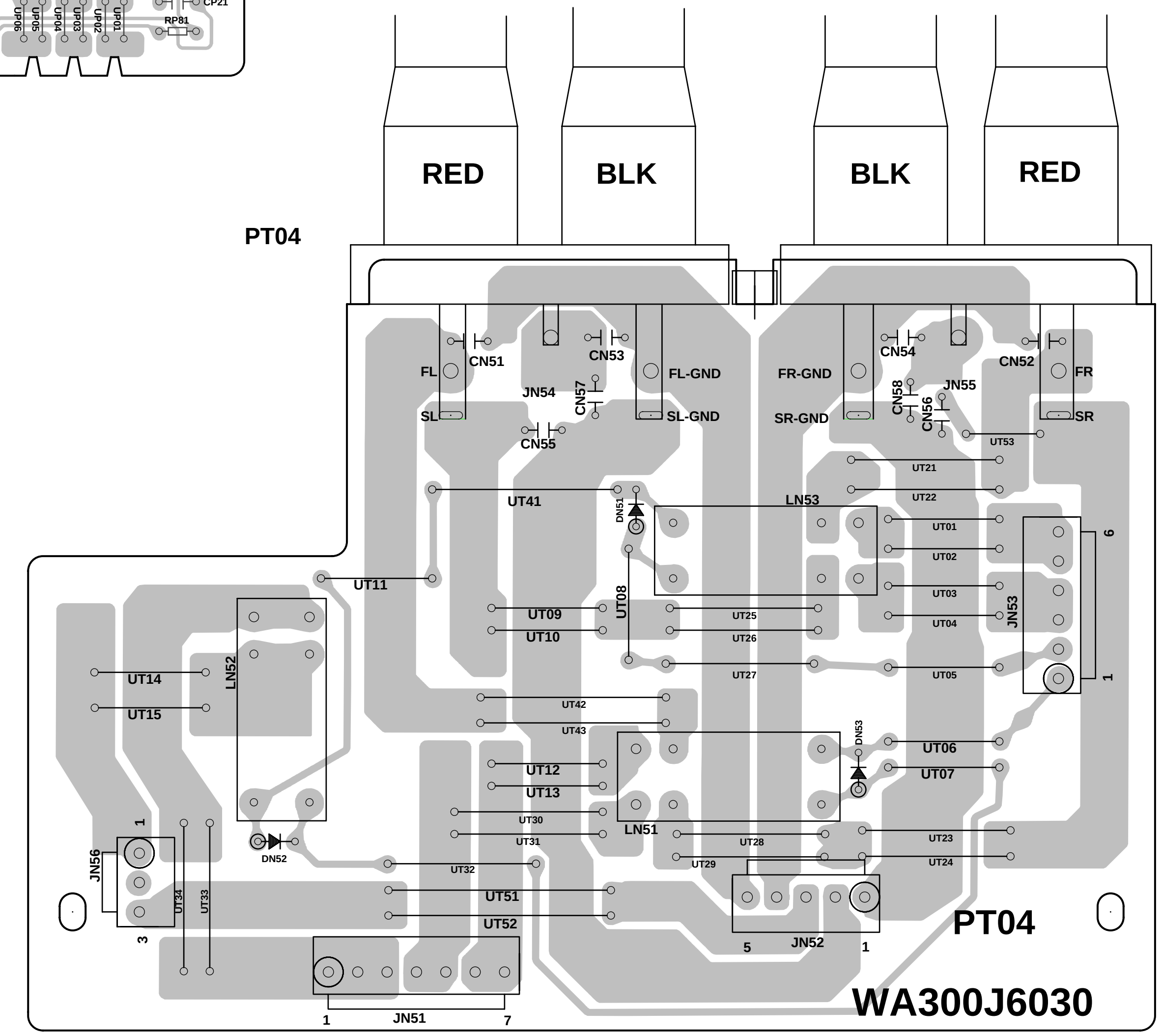
P774 **P794**



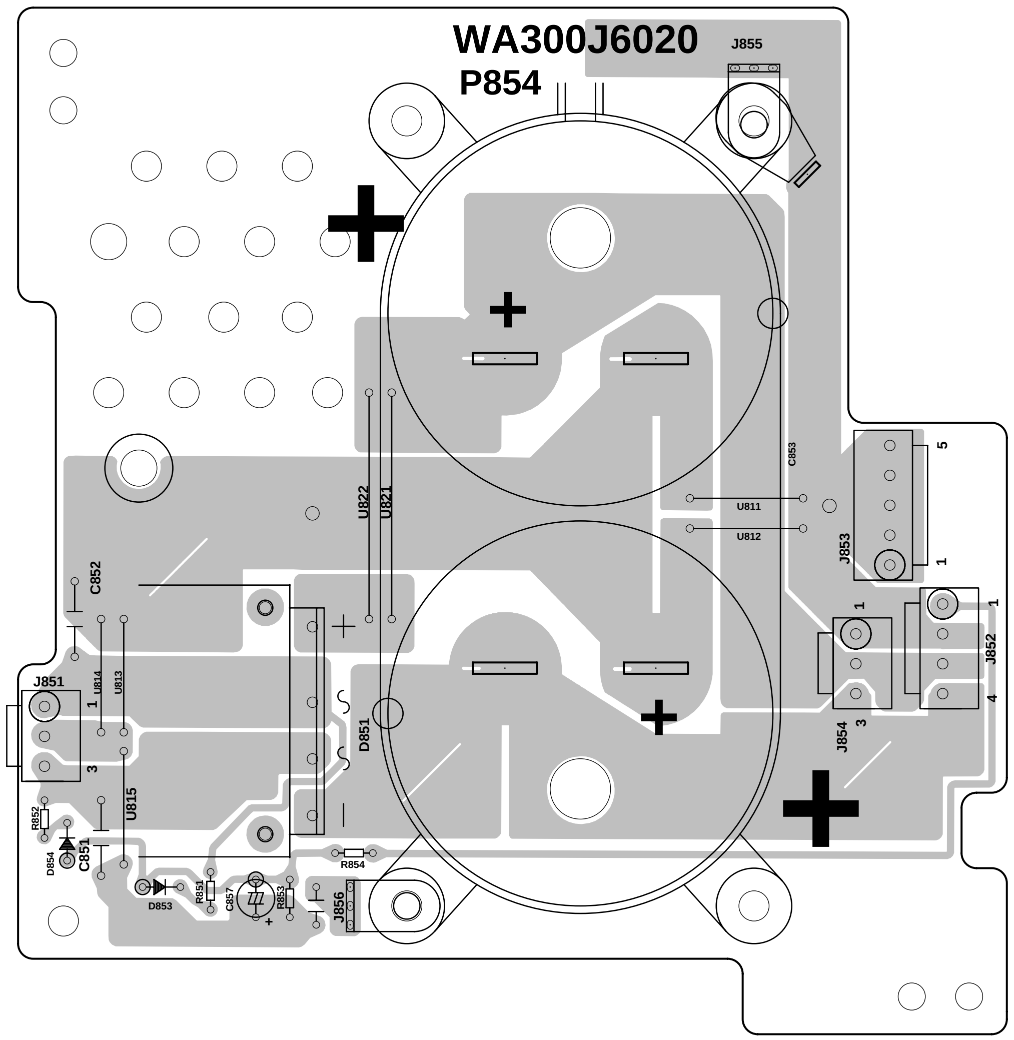
Q725 Q715 Q727 Q726 Q716 Q728 QT25 QT15 QT27


P754
QN14
QN13
QN03
QN05 QN04 QN06
QN02 QN10 QN12 QN11
QN09 QN08 QN07
QP04 QP02
QP10 QP14
QP08
QP12 QP06
QP03 QP01
QP09 QP13
QP07
QP11 QP05
FR-CH
P754
WA300J1012
SL-CH
Q871
Q861
Q881
QP28
QP20 QP24
QP16
QP18 QP22
QP26
QP30
QP27
QP19 QP23
QP15

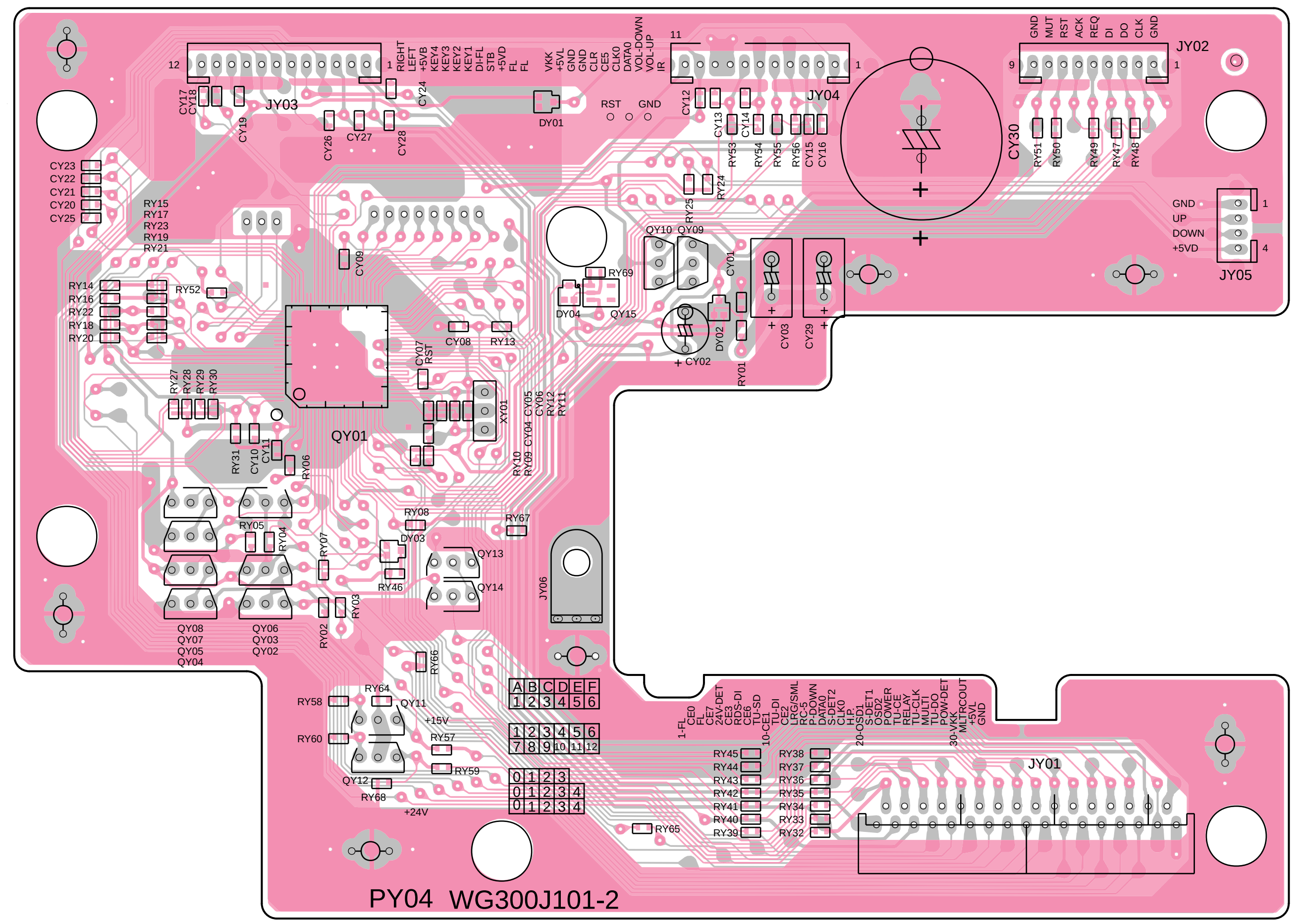

PT74
RED
BLK
TOP
CNT SPK
CN71
C
C-GND
CN72
JN71
GND
JN72
PT74
WA300J6040


RED
BLK
BLK
RED
PT04
FL
CN51
CN53
FL-GND
FR-GND
CN54
CN52
FR
SL
SL-GND
SR-GND
SR
JN54
JN55
CN55
LN53
JN53
LN52
LN51
JN56
JN52
JN51
PT04
WA300J6030

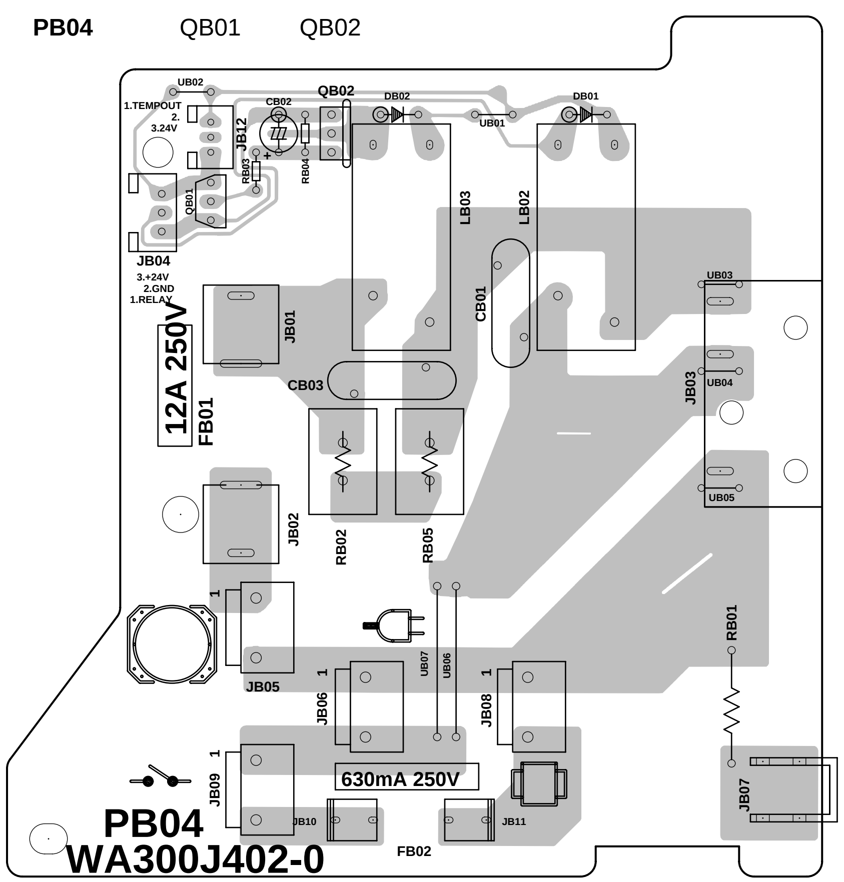
P854



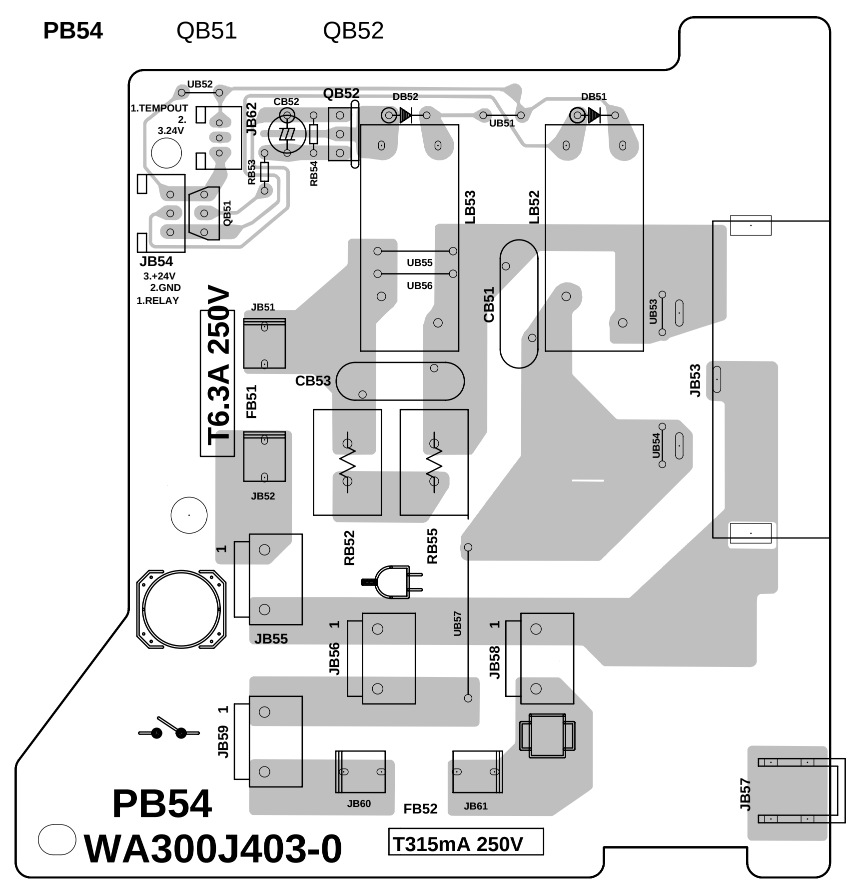
PY04 QY01 QY15 QY10 QY09
QY02 - QY08 QY13 QY14
QY11 QY12



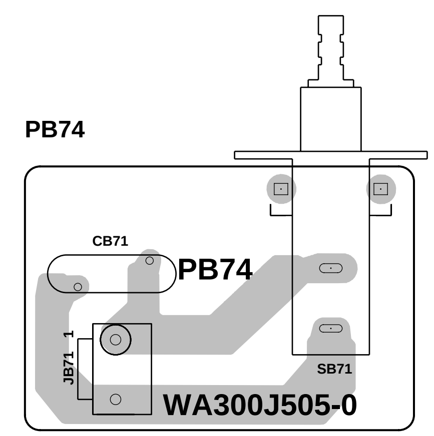
PB04 QB01 QB02



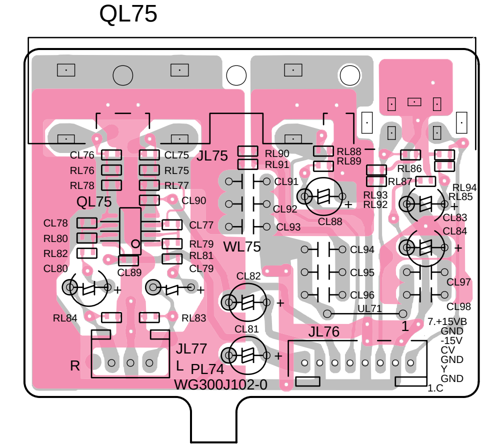
PB54 QB51 QB52



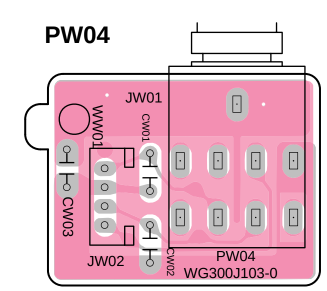
PB74



PL74 QL75

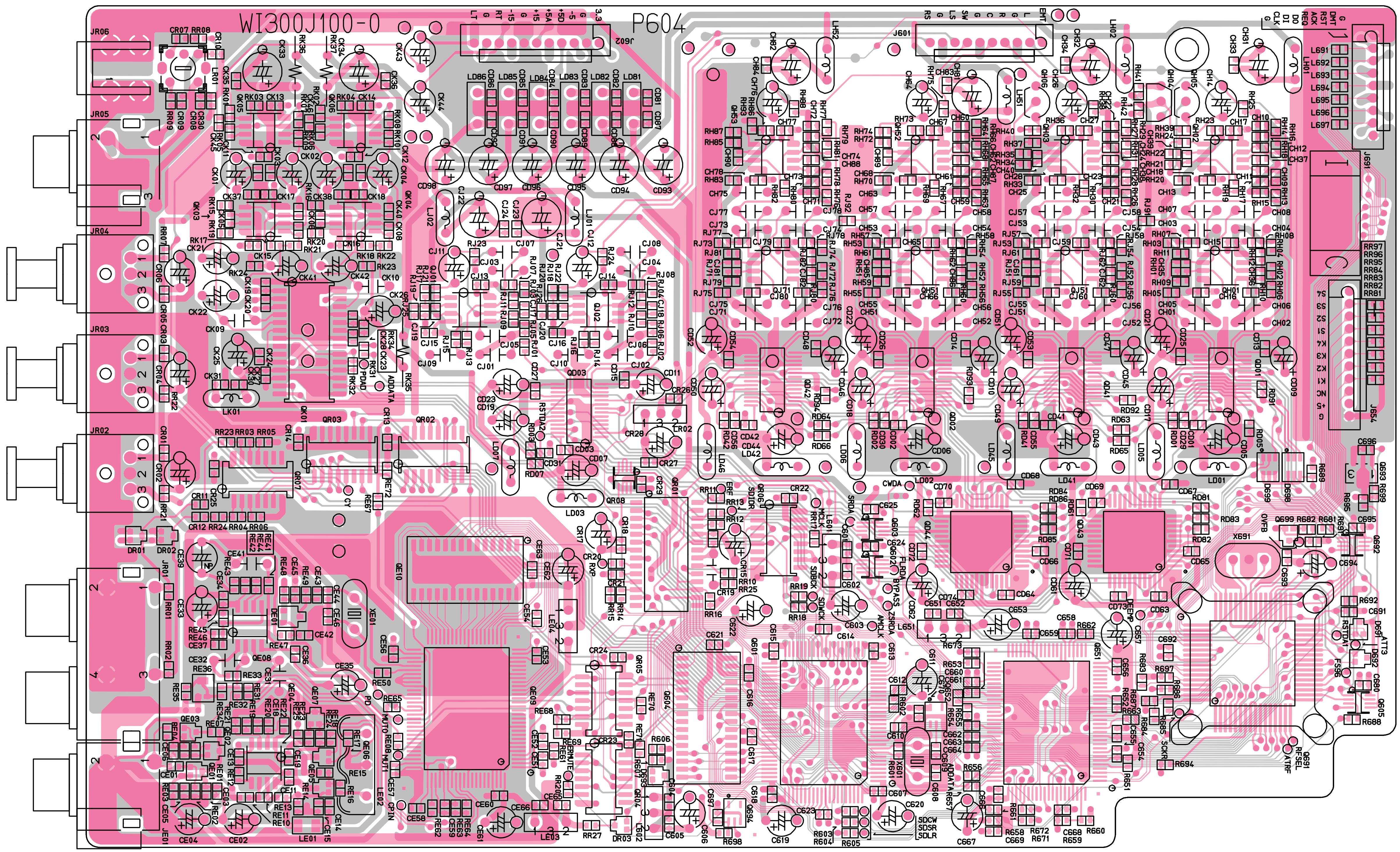


PW04



P604

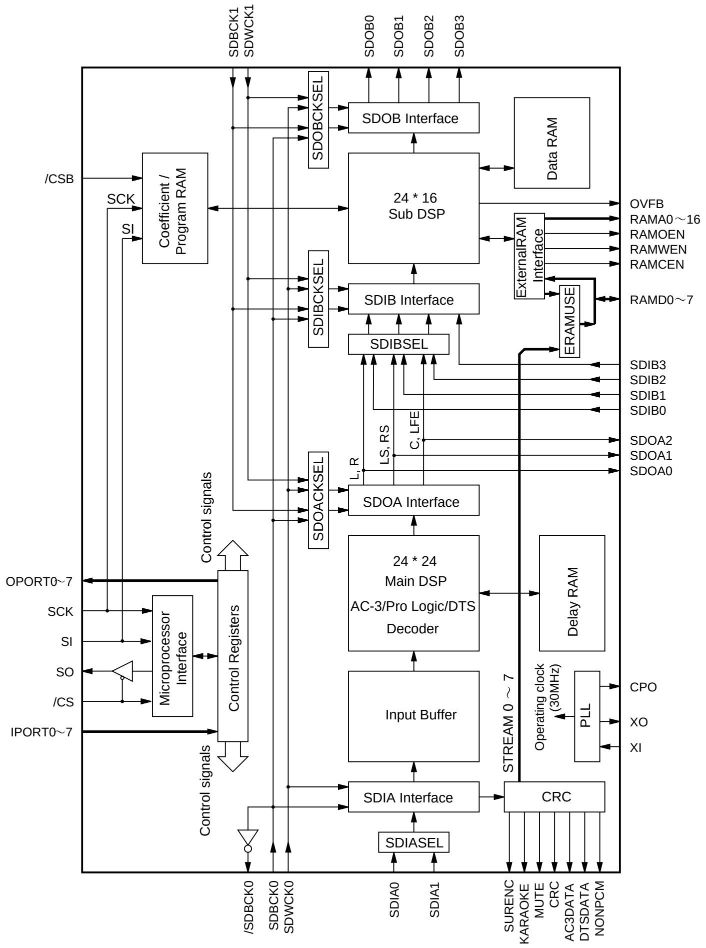
QK05 QK06
QK03 QK04 QJ01 QJ02 QH53 QH52 QH06 QH03 QH04 QH05 QH02
QK01 QD03 QJ71 QH51 QJ51 QH01
QD42 QD02 QD41 QD01



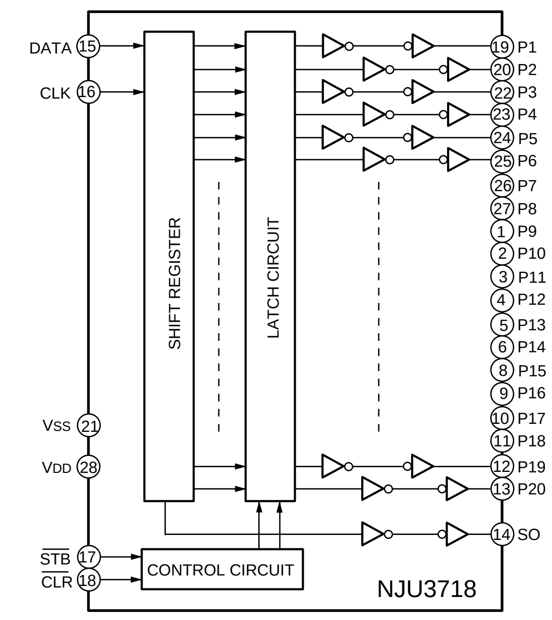
QR07 QR03 QR02 QR08 QR01 QR06 Q603 QD04 QD43 Q966 Q693
QE08 QE01 QE10 QR05 Q604 Q601 Q602 Q652 Q651 Q691 Q692
QE01 - QE04 - QE07 QE09 QR04 Q694 Q605

6. IC DATA

Q601:YSS912



QL07/QU02:NJU3718

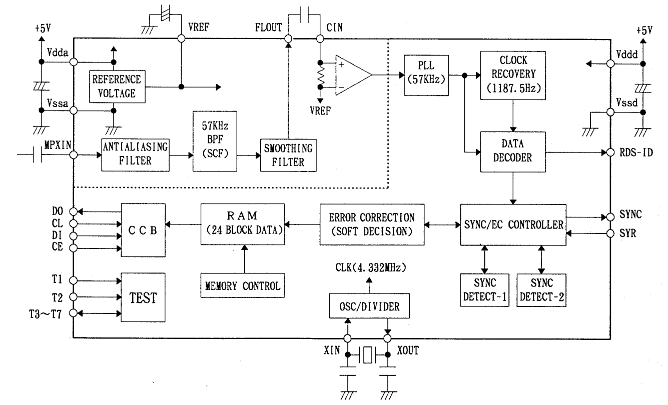


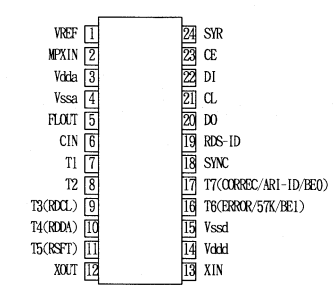
No.	NAME	I/O	FUNCTION
1	VDD1	-	+5V power supply (for I/Os)
2	RAMCEN	O	External SRAM Interface /CE
3	RAMA16	O	External SRAM Interface address 16
4	RAMA15	O	External SRAM Interface address 15
5	SDIB0	I+	PCM input 0 to Sub DSP
6	SDIB1	I+	PCM input 1 to Sub DSP
7	SDIB2	I+	PCM input 2 to Sub DSP
8	XI	I	Crystal oscillator connection or input external clock (12.288 MHz)
9	XO	o	Crystal oscillator connection
10	VSS	-	Ground
11	AVDD	-	+3.3V power supply (for PLL circuit)
12	SDIB3	I+	PCM input 3 to Sub DSP
13	TEST		Test terminal (to be open in normal use)
14	TEST		Test terminal (to be open in normal use)
15	OVFB	O	Detection of overflow at Sub DSP
16	DTSDATA	O	DTS data detection (Refer to "Status Register".)
17	AC3DATA	O	AC-3 data detection (Refer to "Status Register" .)
18	SDOB3	O	PCM output from Sub DSP
19	CPO	A	Output terminal for PLL, to be connected to ground through the external analog filter circuit. (Refer to "External Circuit for PLL" .)
20	AVSS	-	Ground (for PLL circuit)
21	VDD2	-	+3.3V power supply (for core logic)
22	SDOA2	o	PCM output from Main DSP (C, LFE)
23	SDOA1	O	PCM output from Main DSP (LS, RS)
24	SDOA0	O	PCM output from Main DSP (L, R)
25	RAMA14	O	External SRAM Interface address 14
26	RAMA13	O	External SRAM Interface address 13
27	RAMA12	O	External SRAM Interface address 12
28	RAMA11	O	External SRAM Interface address 11
29	RAMA10	O	External SRAM Interface address 10
30	VSS	-	Ground
31	VDD1	-	+5V power supply (for I/Os)
32	OPORT0	O	Output port for general purpose. (Refer to " OPORT Register")
33	OPORT1	O	Output port for general purpose. (Refer to " OPORT Register")
34	OPORT2	O	Output port for general purpose. (Refer to " OPORT Register")
35	OPORT3	O	Output port for general purpose. (Refer to " OPORT Register")
36	OPORT4	O	Output port for general purpose. (Refer to " OPORT Register")
37	OPORT5	O	Output port for general purpose. (Refer to " OPORT Register")
38	OPORT6	O	Output port for general purpose. (Refer to " OPORT Register")
39	OPORT7	O	Output port for general purpose. (Refer to " OPORT Register")
40	VSS	-	Ground
41	VDD2	-	+3.3V power supply (for core logic)
42	RAMA9	O	External SRAM interface address 9
43	RAMA8	O	External SRAM interface address 8
44	RAMA7	O	External SRAM interface address 7
45	SDOB2	O	PCM output from Sub DSP
46	SDOB1	O	PCM output from Sub DSP
47	SDOB0	O	PCM output from Sub DSP
48	SDBCK1	I+	Bit clock input for SDOA, SDIB, SDOB. (Refer to " SDOA, SDIB, SDOB Register")
49	SDWCK1	I+	Word clock input for SDOA, SDIB, SDOB. (Refer to " SDOA, SDIB, SDOB Register")
50	VSS	-	Ground

No.	NAME	I/O	FUNCTION
51	VDD2	-	+3.3V power supply (for core logic)
52	NONPCM	O	Detection of non PCM data. (Refer to " Status Register")
53	CRC	O	Detection of AC-3 CRC error. (Refer to " Status Register")
54	MUTE	O	Detection of auto-mute. (Refer to " Status Register")
55	KARAOKE	O	Detection of AC-3 karaoke data. (Refer to " Status Register")
56	SURENC	O	Detection of AC-3 2/0 mode Dolby surround encoded input (Refer to " Status Register")
57	/SDBCK0	O	Inverted SDBCKO clock output (refer to " Block diagram")
58	RAMA6	O	External SRAM Interface address 6
59	RAMA5	O	External SRAM Interface address 5
60	VSS	-	Ground
61	RAMA4	O	External SRAM Interface address 4
62	/IC	Is	Initial clear
63	TEST		Test terminal (to be open in normal use)
64	RAMA3	O	External SRAM Interface address 3
65	/CSB	Is+	Sub DSP Chip select
66	/CS	Is	Microprocessor interface Chip select
67	SO	Ot	Microprocessor interface Serial data output
68	SI	Is	Microprocessor interface/Sub DSP Serial data input
69	SCK	Is	Microprocessor interface/Sub DSP clock input
70	RAMA2	O	External SRAM Interface address 2
71	VDD1	-	+5V power supply (for I/Os)
72	RAMD0	I+/O	External SRAM Interface data (STREAM 0 output when External SRAM is not in use)
73	RAMD1	I+/O	External SRAM Interface data (STREAM 1 output when External SRAM is not in use)
74	RAMD2	I+/O	External SRAM Interface data (STREAM 2 output when External SRAM is not in use)
75	RAMD3	I+/O	External SRAM Interface data (STREAM 3 output when External SRAM is not in use)
76	RAMD4	I+/O	External SRAM Interface data (STREAM 4 output when External SRAM is not in use)
77	RAMD5	I+/O	External SRAM Interface data (STREAM 5 output when External SRAM is not in use)
78	RAMD6	I+/O	External SRAM Interface data (STREAM 6 output when External SRAM is not in use)
79	RAMD7	I+/O	External SRAM Interface data (STREAM 7 output when External SRAM is not in use)
80	VSS	-	Ground
81	VDD2	-	+3.3V power supply (for core logic)
82	SDWCK0	I	Word clock input for SDIA, SDOA, SDIB, SDOB (Refer to " SDIA, SDOA, SDIB, SDOB Register")
83	SDBCK0	I	Bit clock input for SDIA SDOA SDIB SDOB (Refer to " SDIA, SDOA, SDIB, SDOB Register")
84	SDIA0	I	AC-3/DTS bitstream (or PCM) data input for Main DSP (Refer to " SDIA Register")
85	SDIA1	I	AC-3/DTS bitstream (or PCM) data input for Main DSP (Refer to " SDIA Register")
86	RAMA1	O	External SRAM Interface address 1
87	RAMA0	O	External SRAM Interface address 0
88	RAMWEN	O	External SRAM Interface /WE
89	RAMOEN	O	External SRAM Interface /OE
90	VSS	-	Ground
91	VDD2	-	+3.3V power supply (for core logic)
92	IPORT7	I+	Input port for general purpose (Refer to " IPORT Register")
93	IPORT6	I+	Input port for general purpose (Refer to " IPORT Register")
94	IPORT5	I+	Input port for general purpose (Refer to " IPORT Register")
95	IPORT4	I+	Input port for general purpose (Refer to " IPORT Register")
96	IPORT3	I+	Input port for general purpose (Refer to " IPORT Register")
97	IPORT2	I+	Input port for general purpose (Refer to " IPORT Register")
98	IPORT1	I+	Input port for general purpose (Refer to " IPORT Register")
99	IPORT0	I+	Input port for general purpose (Refer to " IPORT Register")
100	VSS		Ground

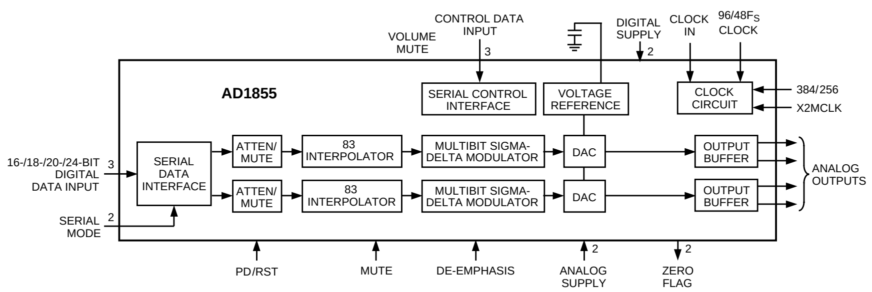
Note) Is : Schmidt trigger input terminal
I+ : Input terminal with a pull-up resistor
O : Digital output terminal
Ot : Tri-state digital output terminal
A : Analog terminal

Q351:LC72720

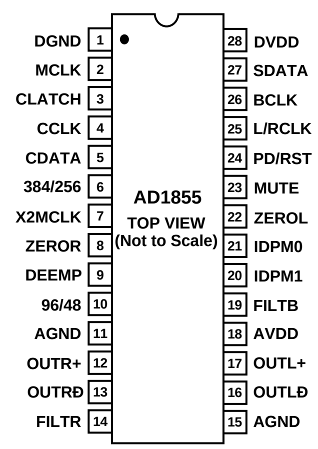




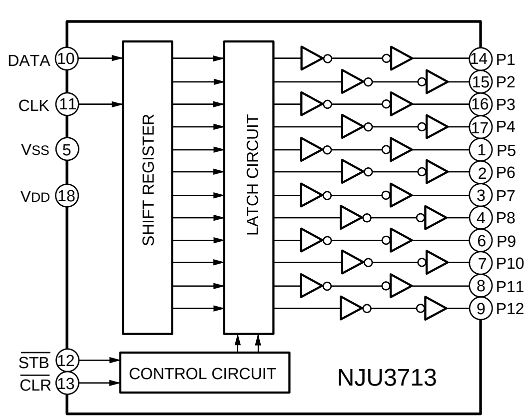
QD01/QD02/QD03:AD1855



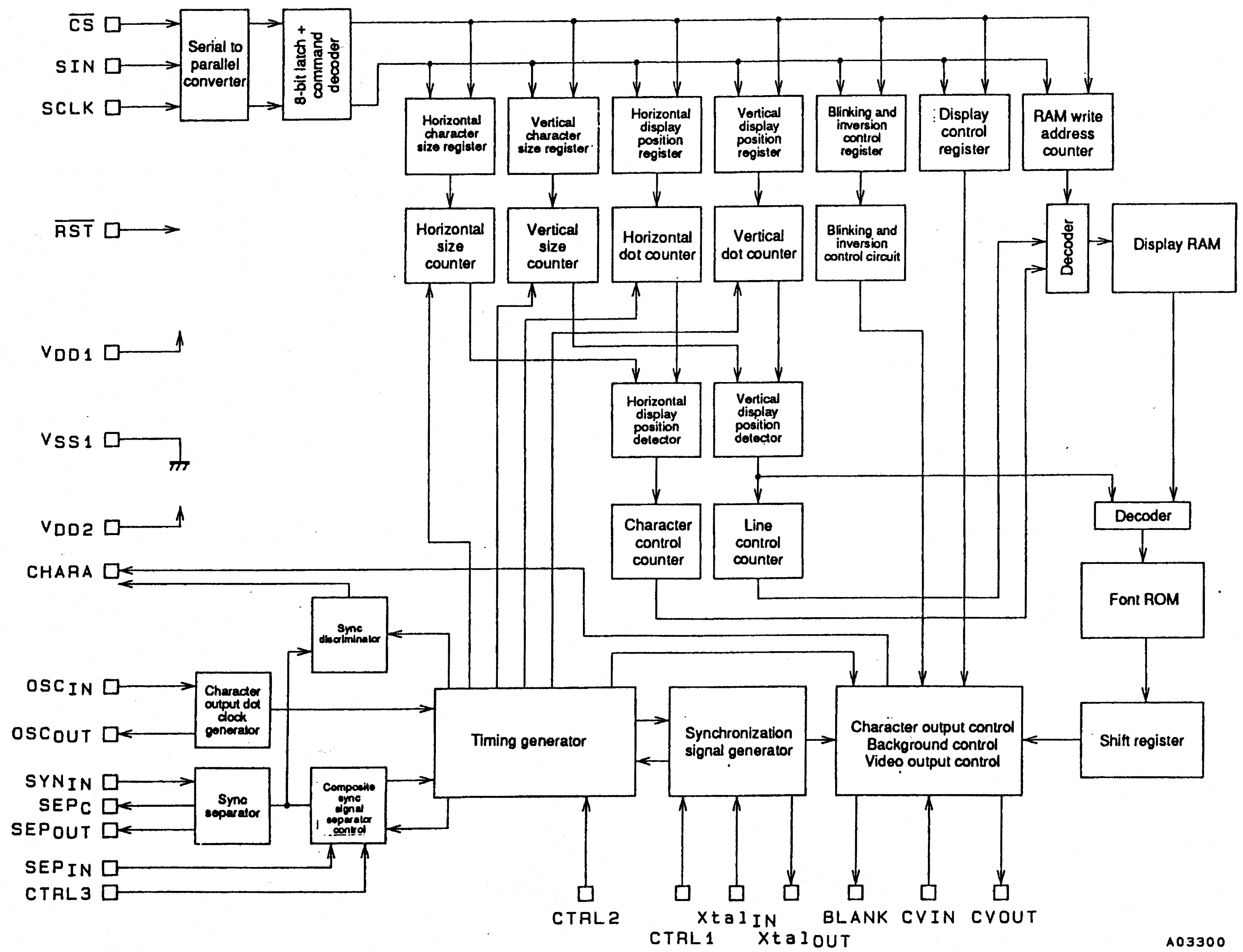
Pin	Input/Output	Pin Name	Description
1	I	DGND	Digital Ground.
2	I	MCLK	Master Clock Input. Connect to an external clock source at either 256, 384 or 512 Fs .
3	I	CLATCH	Latch input for control data. This input is rising-edge sensitive.
4	I	CCLK	Control clock input for control data. Control input data must be valid on the rising edge of CCLK. CCLK may be continuous or gated.
5	I	CDATA	Serial control input, MSB first, containing 16 bits of unsigned data per channel. Used for specifying channel specific attenuation and mute.
6	I	384/256	Selects the master clock mode as either 384 times the intended sample frequency (HI) or 256 times the intended sample frequency (LO). The state of this input should be hardwired to logic HI or logic LO, or may be changed while the AD1855 is in power-down/reset. It must not be changed while the AD1855 is operational.
7	I	X2MCLK	Selects internal clock doubler (LO) or internal clock = MCLK (HI).
8	O	ZEROR	Right Channel Zero Flag Output. This pin goes HI when Right Channel has no signal input for more than 1024 LR Clock Cycles.
9	I	DEEMP	De-Emphasis. Digital de-emphasis is enabled when this input signal is HI. This is used to impose a 50ms/15 ms response characteristic on the output audio spectrum at an assumed 44.1 kHz sample rate.
10	I	96/48	Selects 48 kHz (LO) or 96 kHz Sample Frequency Control.
11, 15	I	AGND	Analog Ground.
12	O	OUTR+	Right Channel Positive line level analog output.
13	O	OUTRĐ	Right Channel Negative line level analog output.
14	O	FILTR	Voltage Reference Filter Capacitor Connection. Bypass and decouple the voltage reference with parallel 10 m F and 0.1 mF capacitors to the AGND.
16	O	OUTLĐ	Left Channel Negative line level analog output.
17	O	OUTL+	Left Channel Positive line level analog output.
18	I	AVDD	Analog Power Supply. Connect to analog +5 V supply.
19	O	FILTB	Filter Capacitor connection, connect 10 mF capacitor to AGND.
20	I	IDPM1	Input serial data port mode control one. With IDPM0, defines one of four serial modes.
21	I	IDPM0	Input serial data port mode control zero. With IDPM1, defines one of four serial modes.
22	O	ZEROL	Left Channel Zero Flag output. This pin goes HI when Left Channel has no signal input for more than 1024 LR Clock Cycles.
23	I	MUTE	Mute. Assert HI to mute both stereo analog outputs. Deassert LO for normal operation.
24	I	PD/RST	Power-Down/Reset The AD1855 is placed in a low power consumption mode when this pin is held LO. The AD1855 is reset on the rising edge of this signal. The serial control port registers are reset to the default values. Connect HI for normal operation.
25	I	L/RCLK	Left/Right clock input for input data. Must run continuously.
26	I	BCLK	Bit clock input for input data. Need not run continuously; may be gated or used in a burst fashion.
27	I	SDATA	Serial input, MSB first, containing two channels of 16, 18, 20, and 24 bits of twos complement data per channel.
28	I	DVDD	Digital Power Supply Connect to digital +5 V supply.

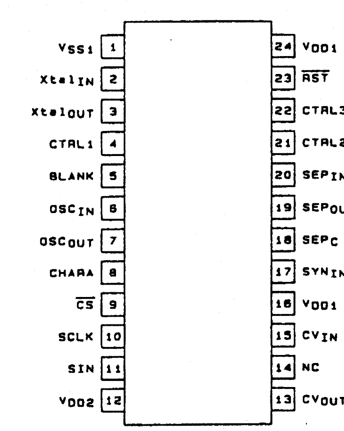


QV01:NJU3713

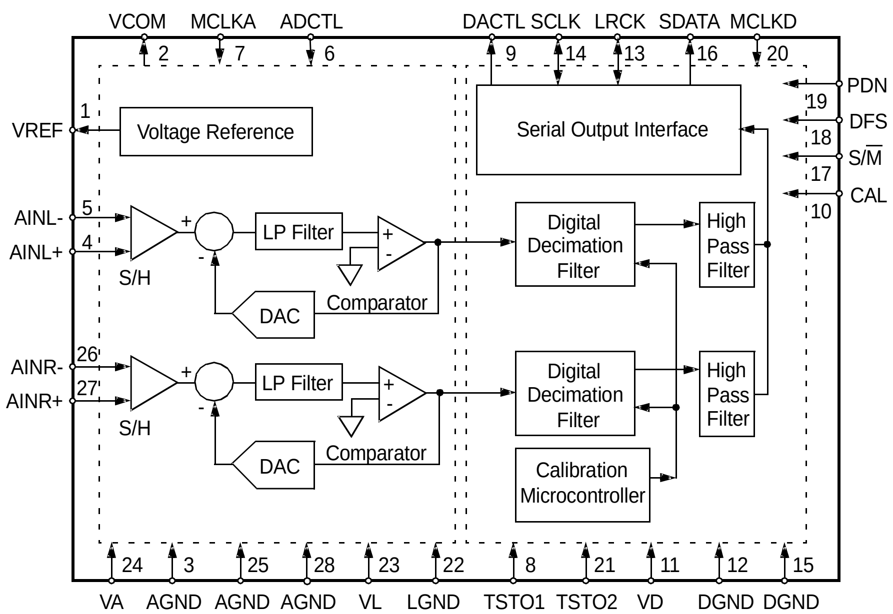


QL09,QZ11:LC74781





QK01:CS5394



VOLTAGE REFERENCE	VREF	1 •	28	AGND	ANALOG GROUND
COMMON MODE VOLTAGE OUTPUT	VCOM	2	27	AINR+	RIGHT CHANNEL ANALOG INPUT+
ANALOG GROUND	AGND	3	26	AINR-	RIGHT CHANNEL ANALOG INPUT-
LEFT CHANNEL ANALOG INPUT+	AINL+	4	25	AGND	ANALOG GROUND
LEFT CHANNEL ANALOG INPUT-	AINL-	5	24	VA	POSITIVE ANALOG POWER
ANALOG CONTROL DATA INPUT	ADCTL	6	23	VL	ANALOG SECTION LOGIC POWER
ANALOG SECTION CLOCK INPUT	MCLKA	7	22	LGND	ANALOG SECTION LOGIC GROUND
TEST OUTPUT	TSTO1	8	21	TSTO2	TEST OUTPUT
CONTROL DATA OUTPUT	DACTL	9	20	MCLKD	DIGITAL SECTION CLOCK INPUT
CALIBRATION	CAL	10	19	PDN	POWER DOWN
DIGITAL SECTION POWER	VD	11	18	DFS	SERIAL DATA FORMAT SELECT
DIGITAL GROUND	DGND	12	17	S/M	SLAVE/MASTER MODE
LEFT/RIGHT CLOCK	LRCK	13	16	SDATA	SERIAL DATA OUTPUT
SERIAL CLOCK	SCLK	14	15	DGND	DIGITAL GROUND

Power Supply Connections

VA - Analog Power, Pin 24.

Positive analog supply. Nominally +5 volts.

VL - Logic Power, Pin 23.

Positive logic supply for the analog section. Nominally +5 volts.

AGND - Analog Ground, Pins 3, 25, and 28.

Analog ground reference.

LGND - Logic Ground, Pin 22.

Ground reference for the logic portions of the analog section.

VD - Digital Power, Pin 11.

Positive supply for the digital section. Nominally +5 volts.

DGND - Digital Ground, Pins 12 and 15.

Digital ground reference for the digital section.

Analog Inputs

AINR-, AINR+ - Differential Right Channel Analog Inputs, Pins 26 and 27.

Analog input connections for the right channel differential inputs. Nominally 4.0 Vpp differential for full-scale digital output.

AINL-, AINL+ - Differential Left Channel Analog Inputs, Pins 4 and 5.

Analog input connections for the left channel differential inputs. Nominally 4.0 Vpp differential for full-scale digital output.

Analog Outputs

VCOM - Common Mode Voltage Output, Pin 2.

Nominally +2.5 volts. Requires a 10 mF electrolytic capacitor in parallel with 0.1 mF ceramic capacitor for decoupling to AGND. Caution is required if this output be used to bias the analog input buffer circuits. Refer to the CDB5394 as an example.

VREF - Voltage Reference Output, Pin 1.

Nominally +4 volts. Requires a 100 mF electrolytic capacitor in parallel with 0.1 mF ceramic capacitor for decoupling to AGND.

Digital Inputs

ADCTL - Analog Control Input, Pin 6.

Must be connected to DACTL. This signal enables communication between the analog and digital circuits.

DFS - Digital Format Select, Pin 18.

The relationship between LRCK, SCLK and SDATA is controlled by the DFS pin. When high, the serial output data format is I 2 S compatible. The serial data format is left-justified when low.

CAL - Calibration, Pin 10.

Activates the calibration of the tri-level delta-sigma modulator on the rising edge of the CAL input.

MCLKA - Analog Section Input Clock, Pin 7.

This clock is internally divided and controls the delta-sigma modulators. An MCLKA frequency of 12.288 MHz sets a modulator sampling rate of 3.072 MHz and a output sample rate of 48 kHz. MCLKA must be connected to MCLKD.

MCLKD - Digital Section Input Clock, Pin 20.

MCLKD clocks the digital filter and must be connected to MCLKA. The required MCLKD frequency is determined by the desired sample rate. A MCLKD of 12.288MHz corresponds to Fs equal to 48 kHz. MCLKA must be connected to MCLKD.

PDN - Power Down, Pin 19.

When high, the device enters power down. Upon returning low, the device enters normal operation and issues commands to initialize the voltage reference and synchronize the analog and digital sections of the device.

S/M - Slave or Master Mode, Pin 17.

When high, the device is configured for Slave mode where LRCK and SCLK are inputs. The device is configured for Master mode where LRCK and SCLK are outputs when S/M is low.

Digital Outputs

DACTL- Digital to Analog Control Output, Pin 9.

Must be connected to ADCTL. This signal enables communication between the digital and analog circuits.

SDATA - Digital Audio Data Output, Pin 16.

The 24-bit audio data is presented MSB first, in 2's complement format. This pin has a internal pull-down resistor and must remain low during the power-up sequence to avoid accessing a test mode.

Digital Inputs or Outputs

LRCK - Left/Right Clock, Pin 13.

LRCK determines which channel, left or right, is to be output on SDATA. The relationship between LRCK, SCLK and SDATA is controlled by the Digital Format Select (DFS) pin. Although the outputs for each channel are transmitted at different times, Left/Right pairs represent simultaneously sampled analog inputs. In master mode, LRCK is an output whose frequency is equal to Fs. In Slave Mode, LRCK is an input whose frequency must be equal to Fs.

SCLK - Serial Data Clock, Pin 14.

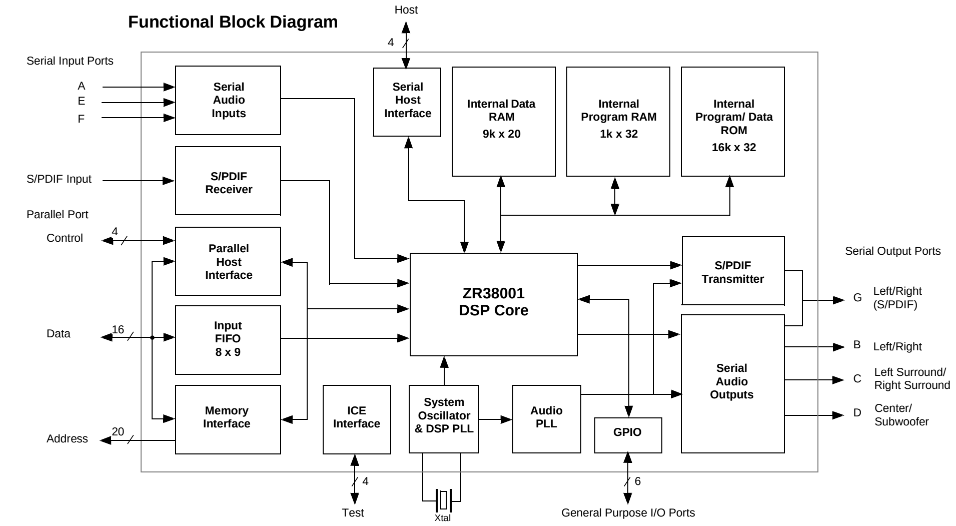
Clocks the individual bits of the serial data from SDATA. The relationship between LRCK, SCLK and SDATA is controlled by the Digital Format Select (DFS) pin. In master mode, SCLK is an output clock at 64•L Fs. In slave mode, SCLK is an input which requires a continuously supplied clock at any frequency from 48•L to 128•L Fs (64•L is recommended).

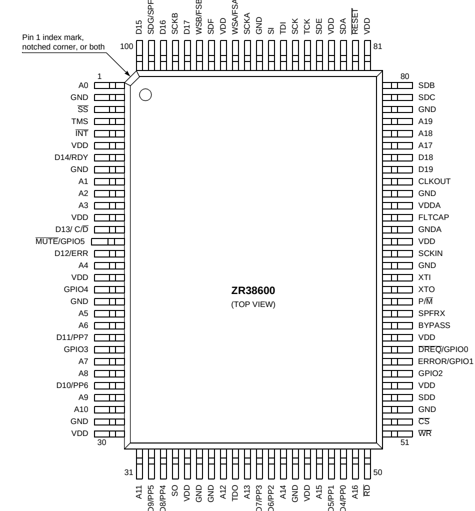
Miscellaneous

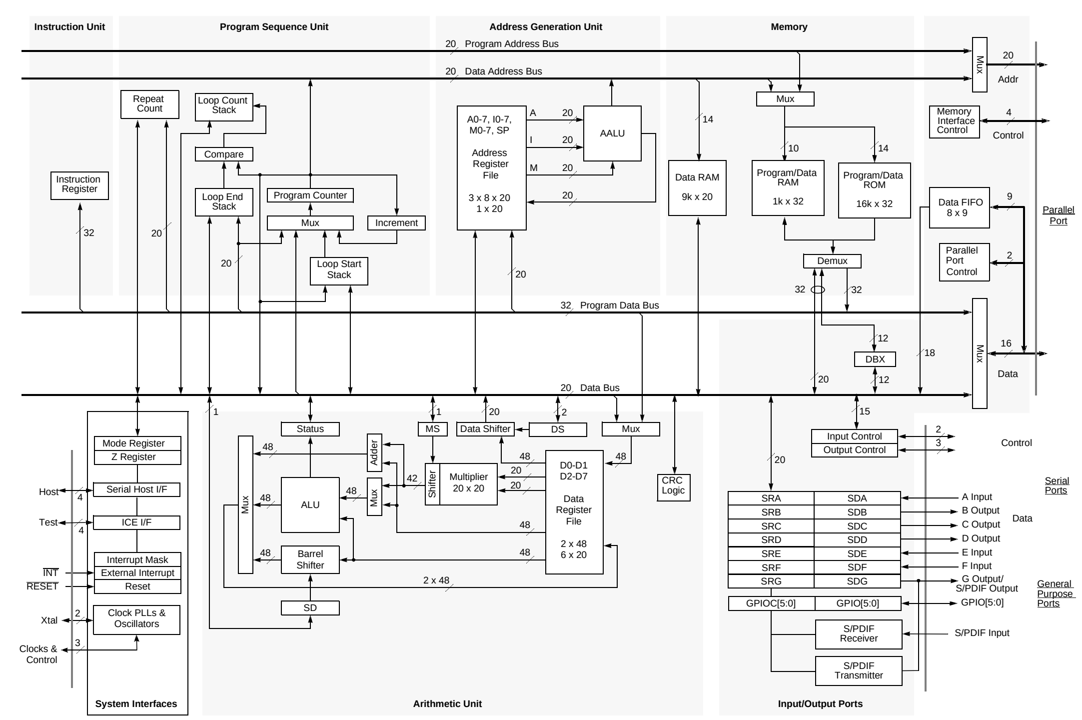
TSTO1, TSTO2 - Test Outputs, Pins 8 and 21.

These pins are intended for factory test outputs. They must not be connected to any external component or any length of circuit trace.

Q651:ZR38600







Detailed Block Diagram

QY01:TMP93CW40DF

Pin Description

No	Port Name	I/O	USE	Sig. Name	Act.	Description
1	VREFL	I	-	-	-	A/D VREFL.
2	AVSS	I	-	-	-	A/D VSS
3	AVCC	I	-	-	-	A/D VCC
4	NMI	I	NMI	-	-	Pull Up
5	P70/TI0	I/O	O	POWER OFF	L	
6	P71/TO1	I/O	O	KILL IR	H	
7	P72/TO2	I/O	O	RC-5 OUT	H	
8	P73/TO3	I/O	O	SPEAKER OFF	H	SPK RELAY
9	P80/INT4/	I/O	I	RC-5 IN	H	Both Edge
10	P81/INT5/	I/O	I	SYNC0	H	Rising Edge
11	P82/TO4	I/O	I	HEAD PHONE	L	
12	P83/TO5	I/O	I	-	-	Fixed
13	P84/INT6/	I/O	I	SURR. ACK	L	Both Edge
14	P85/INT7/	I/O	I	SYNC1	H	Rising Edge
15	P86/TO6	I/O	I	MULTI RC-5 IN	L	
16	P87/INT0	I/O	I	POWER DOWN	L	
17	P90/TXD0	I/O	TXD	DO0	-	I/F to SURR. uP
18	P91/RXD0	I/O	RXD	DI0	-	I/F to SURR. uP
19	P92/SCLK0	I/O	SCLK	CLK0	-	I/F to SURR. uP
20	P93/TXD1	I/O	TXD	DO1	-	I/F to ICs
21	P94/RXD1	I/O	RXD	DI1	-	I/F to ICs
22	P95/SCLK1	I/O	SCLK	CLK1	-	I/F to ICs
23	AM8/_16	I	-	-	-	Pull Up
24	CLK	O	-	-	-	Pull Up
25	VCC	I	-	-	-	Pull Up
26	VSS	I	-	-	-	to VSS
27	X1	I	-	-	-	20MHz
28	X2	O	-	-	-	20MHz
29	EA	I	-	-	-	Pull Up
30	RESET	I	-	-	-	
31	P96/XT1	I/O	I	-	-	to VSS
32	P97/XT2	I/O	I	-	-	to VSS
33	TEST1	I	-	-	-	to TEST2
34	TEST2	I	-	-	-	to TEST1
35	PA0	I/O	O	OSD ON0	H	
36	PA1	I/O	O	OSD ON1	H	
37	PA2	I/O	O	CLR LED	L	NJU3718 CLR
38	PA3	I/O	O	MULTI RC-5 OUT	H	
39	PA4	I/O	O	LARGE/SMALL	L	LARGE = L
40	PA5	I/O	O	SMUTE	H	
41	PA6	I/O	O	SURR. RESET	L	
42	PA7/SCOUT	I/O	O	SURR. REQ.	L	I/F to SURR. uP
43	ALE	O	-	-	-	Pull Up
44	VCC	I	-	-	-	to VCC
45	P00	I/O	O	CE(TUNER)	H	
46	P01	I/O	O	CLK(TUNER)	-	
47	P02	I/O	O	DO(TUNER)	-	
48	P03	I/O	I	DI(TUNER)	-	
49	P04	I/O	I	SD(TUNER)	L	
50	P05	I/O	I	DI(RDS)	-	
51	P06	I/O	O	-	-	
52	P07	I/O	O	-	-	
53	P10	I/O	O	-	-	
54	P11	I/O	O	-	-	
55	P12	I/O	O	-	-	
56	P13	I/O	O	-	-	
57	P14	I/O	O	-	-	
58	P15	I/O	O	-	-	
59	P16	I/O	O	-	-	
60	P17	I/O	O	-	-	
61	WDTOUT	O	-	-	-	N.C
62	VSS	I	-	-	-	to VSS
63	VCC	I	-	-	-	to VCC
64	P20	I/O	I	FUNC. ENC. A	-	
65	P21	I/O	I	FUNC. ENC. B	-	
66	P22	I/O	I	VOL. ENC. A	-	
67	P23	I/O	I	VOL. ENC. B	-	
68	P24	I/O	I	GYRO A	-	
69	P25	I/O	I	GYRO B	-	
70	P26	I/O	I	-	-	to VSS
71	P27	I/O	I	-	-	to VSS
72	P30	I/O	O	CE0(AUDIO)	H	
73	P31	I/O	O	CE1(VIDEO)	L	
74	P32	I/O	O	CE2(VOLUME)	H	
75	P33	I/O	O	CE3(MUTE)	L	
76	P34	I/O	O	CE4(LED)	L	
77	P35	I/O	O	CE5(FL)	L	
78	P36	I/O	O	CE6(OSD)	L	
79	P37	I/O	O	CE7(OSD2)	L	
80	P40	I/O	O	(RESERVED)	-	

Act.: Active level

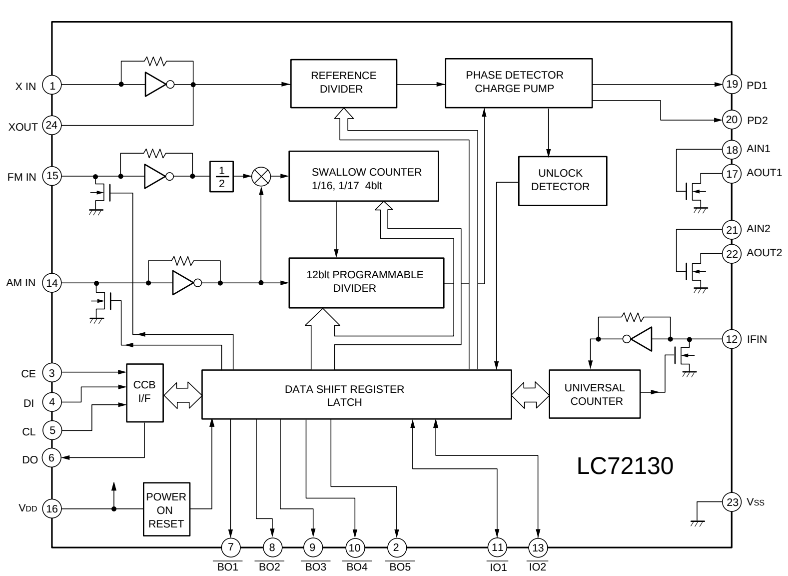
Q691:µPD78018

Pin Description

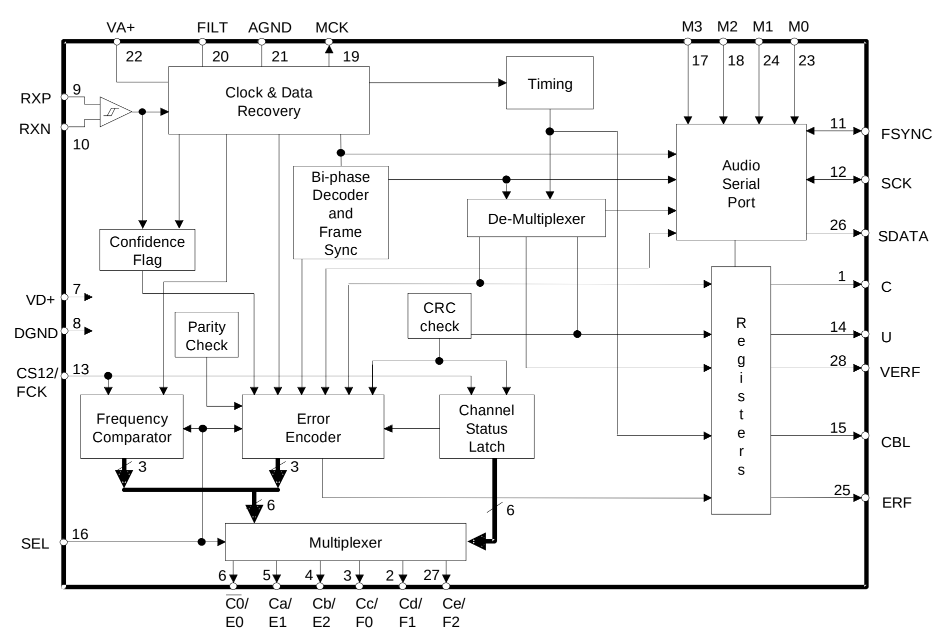
No	Port Name	I/O	USE	Sig. Name	Act.	Description
1	P30/TO00	I/O	I	C0_E0	-	DIR Status
2	P31/TO1	I/O	I	Ca_E1	-	DIR Status
3	P32/TO2	I/O	I	Cb_E2	-	DIR Status
4	P33/TI1	I/O	I	Cc_F0	-	DIR Status
5	P34/TI2	I/O	I	Cd_F1	-	DIR Status
6	P35/PCL	I/O	I	Ce_F2	-	DIR Status
7	P36/BUZ	I/O	O	TEST_COM	H	For Check SIO0 Interface
8	P37	I/O	I	OLD_OVFB	H	keep in port for SR880MK2
9	Vss	I	-	GND	-	GND
10	P40	I/O	O	ISEL1	-	SPDIF input select
11	P41	I/O	O	ISEL2	-	SPDIF input select
12	P42	I/O	O	CSEL1	-	SPDIF output select
13	P43	I/O	O	CSEL2	-	SPDIF output select
14	P44	I/O	O	KILLC	H	Kill SPDIF output
15	P45	I/O	O	ATRF	H	Auto RF select
16	P46	I/O	O	RFSEL	H	RF select
17	P47	I/O	O	DIG_ANA	-	Digital/_Analog select
18	P50	I/O	O	SMUTE	H	Soft mute by DAC
19	P51	I/O	O	_UMUTE	L	Hard mute by Tr.
20	P52	I/O	O	FS96	H	Fs=96k set
21	P53	I/O	O	BYPASS	H	Bypass DSP
22	P54	I/O	O	_CS_DSP1	L	I/F Q601 (main DSP)
23	P55	I/O	O	_CSB_DSP1	L	I/F Q601 (sub DSP)
24	Vss	I	-	GND	-	GND
25	P56	I/O	O	_SS_DSP2	L	I/F Q651
26	P57	I/O	O	C_EF_DIR	-	DIR Status Out Select
27	P60	I/O	O	_RSTRF	L	Reset to PM4007
28	P61	I/O	O	ADCAL	H	Cal. to ADC
29	P62	I/O	O	_RSTDSP2	L	Reset to Q651
30	P63	I/O	O	_ATT3	L	Attenuate to Bypass
31	P64	I/O	O	_RSTDA1	L	Reset to DAC
32	P65	I/O	O	_RSTDA2	L	Reset to DAC
33	P66/WAIT	I/O	O	_IC	L	Reset to Q601
34	P67/ASTB	I/O	O	RSTDIR	H	DIR Ch. Status Select
35	RESET	I	I	RSTC	L	I/F Master CPU
36	P00/INTP0	I	I	OVFB	-	Over load to DSP
37	P01/INTP1	I/O	I	_REQ	L	I/F Master CPU
38	P02/INTP2	I/O	I	ERF	H	SPDIF Error status
39	P03/INTP3	I/O	I	_RFNODET	L	RF input status
40	Vdd	I	-	+5V	-	+5v
41	X2	O	-	-	-	10MHz
42	X1	I	-	-	-	10MHz
43	IC	I	-	-	-	to GND
44	XT2	O	-	n.c.	-	Open
45	P04/XT1	I	-	n.c.	-	Vdd
46	Avss	I	-	GND	-	GND
47	P10/ANI0	I/O	ANI	KEY1	-	Optional 8 key input
48	P11/ANI1	I/O	ANI	KEY2	-	Optional 8 key input
49	P12/ANI2	I/O	ANI	KEY3	-	Optional 8 key input
50	P13/AMI3	I/O	ANI	KEY4	-	Optional 8 key input
51	P14/ANI4	I/O	I	SWITCH1	-	Link Host or Stand alone
52	P15/ANI5	I/O	I	SWITCH2	-	THX or Not
53	P16/ANI6	I/O	I	SWITCH3	-	ADC or CODEC
54	P17/ANI7	I/O	O	PDAD	-	ADC Power Down
55	AVdd	I	-	+5v	-	+5v
56	AVref	I	-	+5v	-	+5v
57	P20/SI1	I/O	I	SI1	-	I/F Master CPU
58	P21/SO1	I/O	O	SO1	-	I/F Master CPU
59	P22/SCK1	I/O	I	SCK1	-	I/F Master CPU
60	P23/STB	I/O	O	_ACK	L	I/F Master CPU
61	P24/BUSY	I/O	O	DEEMP	-	Pull Up
62	P25/SI0	I/O	I	SI0	-	I/F Q601&Q651
63	P26/SO0	I/O	O	SO0	-	I/F Q601&Q651
64	P27/SCK0	I/O	O	SCK0	-	I/F Q601&Q651

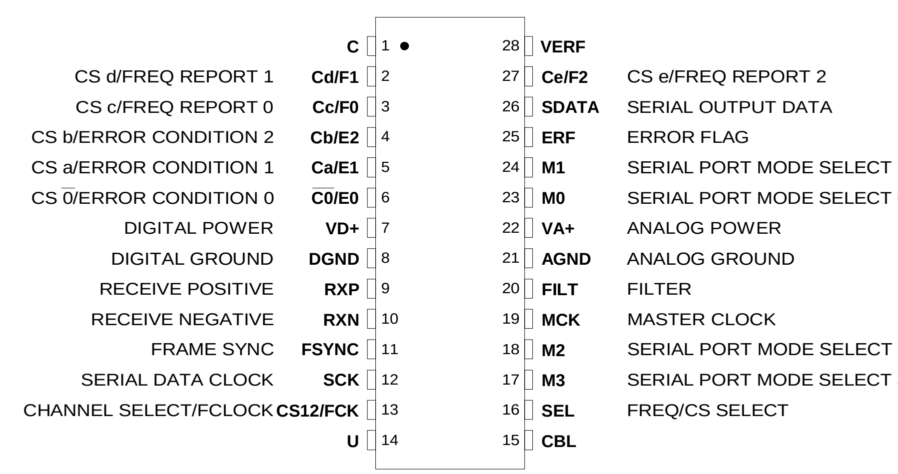
Act. : Active level , OPT : Option

Q501:LC72130

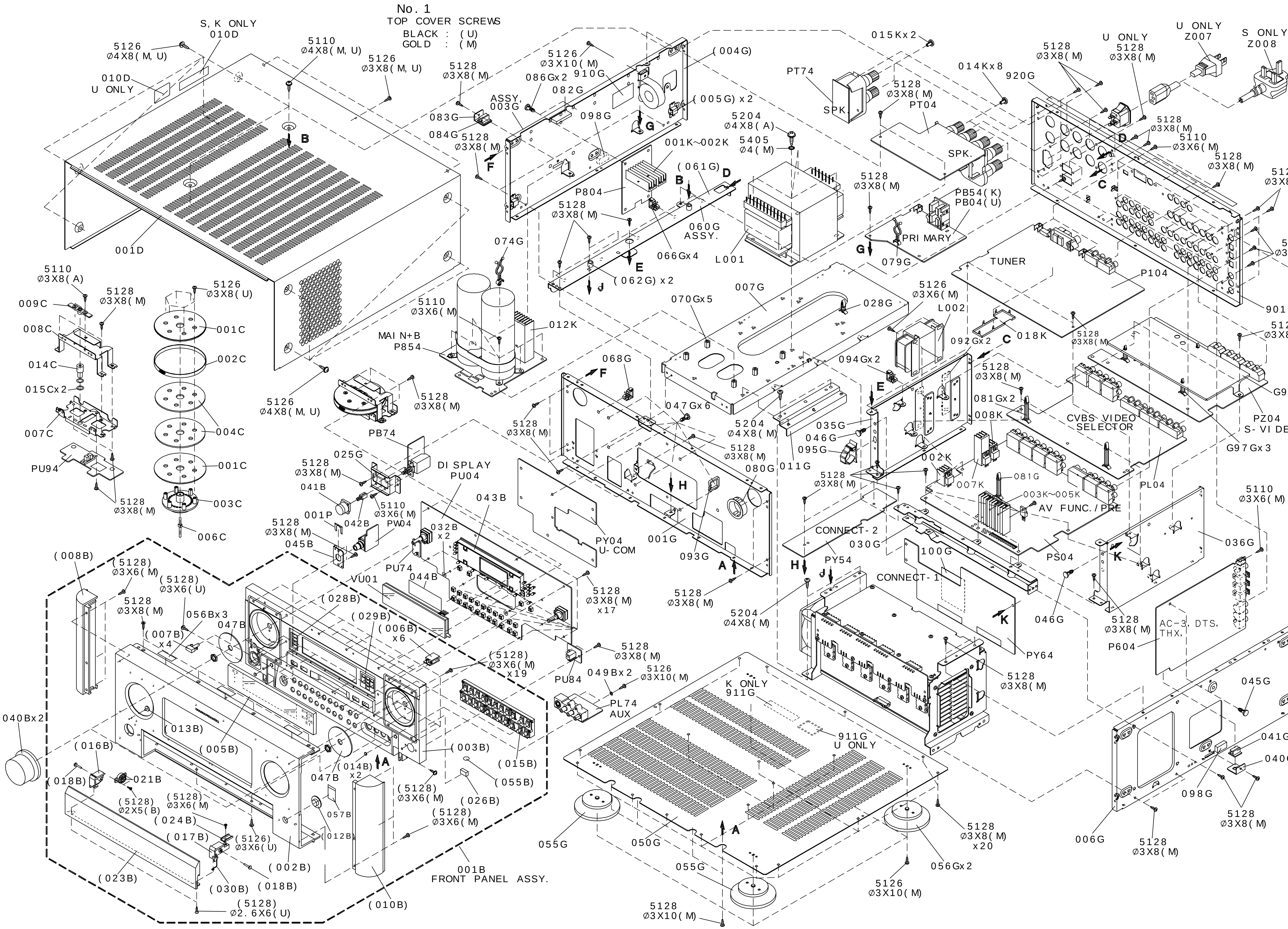


QR01:CS8414



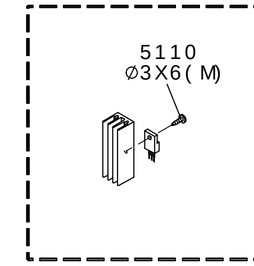


7. EXPLODED VIEW AND PARTS LIST



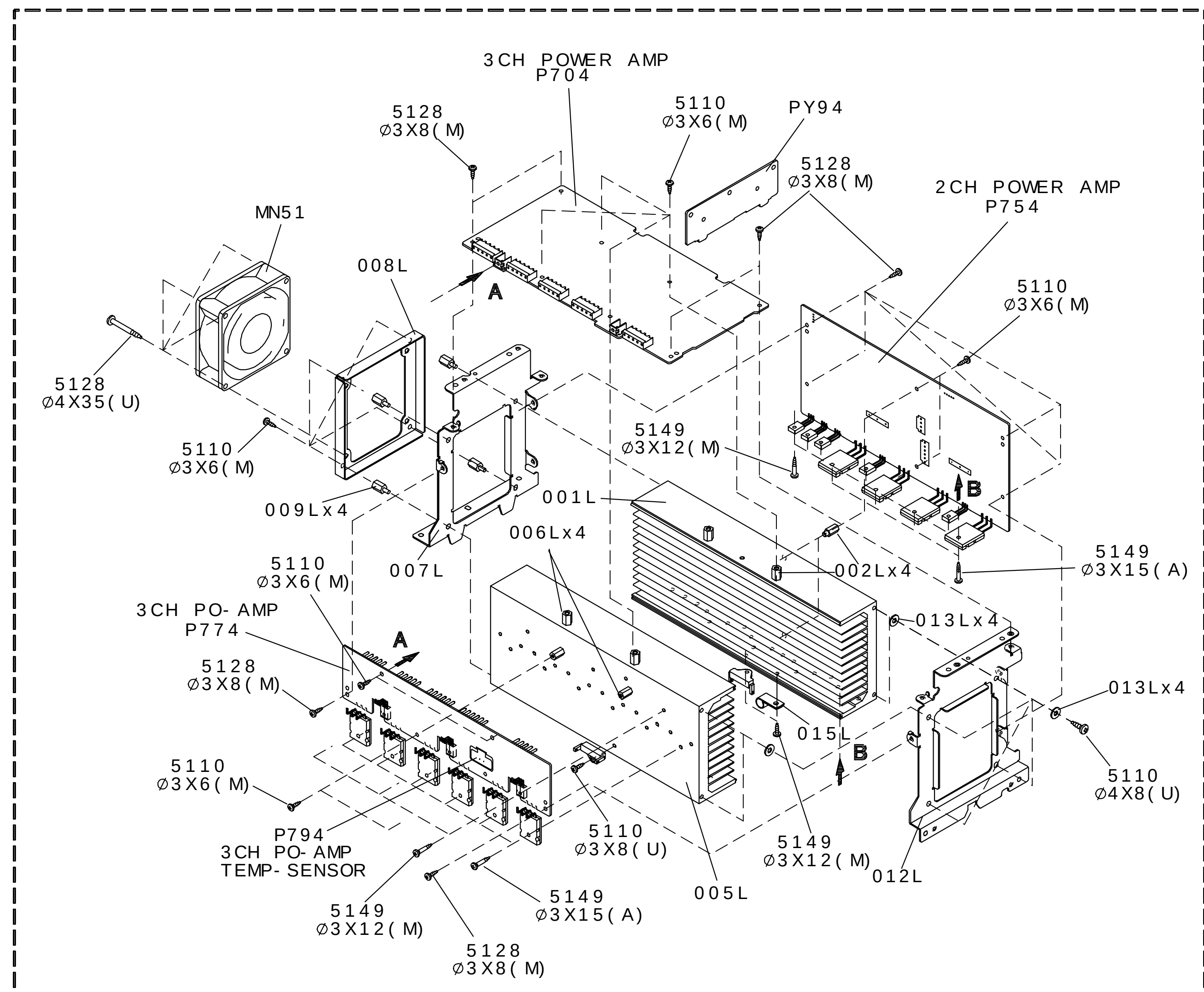
POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B	GOLD		FRONT AL PANEL KIT GL	323J248510
001B	BLACK		FRONT AL PANEL KIT BL	323J248500
002B	GOLD		FRONT AL PANEL GL	323J248110
002B	BLACK		FRONT AL PANEL BL	323J248010
003B	GOLD		FRONT MOULD PANEL GL	300J248150
003B	BLACK		FRONT MOULD PANEL BL	300J248050
005B	GOLD		WINDOW FL GL	300J158110
005B	BLACK		WINDOW FL BL	300J158010
006B		9965 000 01794	LENS FUNCTION LED	300J355010
007B	GOLD	9965 000 01795	BUTTON GYRO SIDE FUNCTION GL	300J270120
007B	BLACK		BUTTON GYRO SIDE FUNCTION BL	300J270020
008B	GOLD		ESCUTCHEON CORNER L SIDE GL	300J063110
008B	BLACK		ESCUTCHEON CORNER L SIDE BL	300J063010
010B	GOLD		ESCUTCHEON CORNER R SIDE GL	300J063120
010B	BLACK		ESCUTCHEON CORNER R SIDE BL	300J063020
012B	GOLD	4822 381 12016	LENS IR GL	256J355030
012B	BLACK	4822 381 12015	LENS IR BL	256J355040
013B		4822 381 11677	LENS POWER LED	230K355020
014B		4822 462 71955	BUFFER DOOR	446T056010
015B	GOLD	9965 000 01798	BUTTON FUNCTION BLOCK G	300J270110
015B	BLACK		BUTTON FUNCTION BLOCK B	300J270010
016B	GOLD	9965 000 01799	ARM DOOR HINGE L SIDE GL	300J002110
016B	BLACK		ARM DOOR HINGE L SIDE BL	300J002010
017B	GOLD	9965 000 01800	ARM DOOR HINGE R SIDE GL	300J002120
017B	BLACK		ARM DOOR HINGE R SIDE BL	300J002020
018B			SHAFT DOOR	300J112010
021B		4822 529 10215	DAMPER DOOR	391H130030
023B	GOLD		DOOR PANEL GL	323J162110
023B	BLACK		DOOR PANEL BL	323J162010
026B		4822 526 20213	MAGNET DOOR	271K305500
028B			MASK WINDOW SHEET L	300J303010
029B			MASK WINDOW SHEET R	300J303020
030B		9650 000 01803	SPRING DOOR ESD	300J115010
040B	GOLD		KNOB MASTER GL	300J154110
040B	BLACK		KNOB MASTER BL	300J154010
041B	GOLD	4822 410 11276	BUTTON POWER GL	176J270150
041B	BLACK	4822 410 11275	BUTTON POWER BL	176J270050
042B		4822 404 21012	JOINT POWER	025J125010
043B		4822 256 92097	HOLDER FL	183J271020
057B	GOLD		MASK IR	300J303030
001C	GOLD	4822 410 11676	ESCUTCHEON GYRO UP & DOWN GL	290J063110
001C	BLACK	4822 410 11675	ESCUTCHEON GYRO UP & DOWN BL	290J063010
002C	GOLD	9965 000 01396	RUBBER RING GYRO GL	290J066110
002C	BLACK		RUBBER RING GYRO BL	290J066010
003C		9965 000 01397	FLYWHEEL GYRO BASE	290J273110
006C		9965 000 01398	SHAFT GYRO MAIN	290J112010
009C			RETAINER GYRO UPPER	290J104050
014C		9965 000 01805	SHAFT GYRO SUSTAINER UNDER	300J112020
015C			WASHER FOR UNDER SIDE	59071102G0
001D	GOLD		LID TOPCOVER GL PAINT	300J257050
001D	BLACK		LID TOPCOVER BL PVC	300J257010
055G			LEG FRONT GOLD PAINT	264J057040
056G			LEG REAR GOLD PAINT	264J057140
014K	GOLD		BUSHING SPK.TERMINAL CAP	227J259010
014K	BLACK		BUSHING SPK.TERMINAL CAP UL 94V-1	227J259020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
015K	GOLD		BUSHING SPK.TERMINAL CAP	227J259010
015K	BLACK		BUSHING SPK.TERMINAL CAP UL 94V-1	227J259020
JL21 ⟆ JL25			SHORT PIN WITH COVER	YQ01000080
⚠ L001	/K		MAINS TRANSF. 220V 50Hz	TS19630130
⚠ L001	/S		MAINS TRANSF. 230V 50Hz	TS19630140
⚠ L001	/U		MAINS TRANSF. 120V 60Hz	TS19630150
⚠ L002	/K		MAINS TRANSF. 220V 50/60Hz	TS17205090
⚠ L002	/S	9965 000 01779	MAINS TRANSF. 230V 50/60Hz	TS17205100
⚠ L002	/U		MAINS TRANSF. 120V 60Hz	TS16404120
L003	/S		FERRITE CORE TFCK-25-15-12	FC50250020
L003	/U		FERRITE CORE TFCK-25-15-12	FC50250020
L004		4822 526 10691	FERRITE CORE TFCK-16-8-13 FOR WL01	FC50160030
L005		4822 526 10691	FERRITE CORE TFCK-16-8-13 FOR WY04	FC50160030
L006		4822 526 10691	FERRITE CORE TFCK-16-8-13 FOR WY02	FC50160030
			PACKING	
001T	/K,/S		USER GUIDE	323J851350
001T	/U		USER GUIDE	323J851250
Z001		9965 000 01382	REMOTE COMMANDER RC-18SR	ZK300J0010
⚠ Z007	/K		MAINS CORD CCEE 2.5A 250V	ZC01803090
⚠ Z007	/S	4822 321 11439	MAINS CORD 2P 10A 250V CLASS2	ZC01803080
⚠ Z007	/U		MAINS CORD 125V 13A UL CSA	ZC01802100
⚠ Z008	/S	9965 000 01383	MAINS CORD 10A 250V HONG KONG	ZC01804070
			NOT STANDARD SPARE PARTS	
001S	/U		PACKING CASE	323J801010
002S	/U		CUSHION L SIDE	300J809010
003S	/U		CUSHION R SIDE	300J809020
Z003	/K		FM ANTENNA 931222R	ZA02800020
Z003	/S		FM ANTENNA 931222R	ZA02800020
Z003	/U	4822 303 30314	FM EXT ANT	ZA02000070
Z004		4822 157 63083	LOOP ANT COIL LA-700HB	LA00055010
Z005	/U	4822 264 30265	PLUG ANT ADAPTOR	YP90000310
Z006	/K	4822 265 10092	JACK AC ADAPTER S-I6116	YJ04001240



SYMBOL	STYLE	PARTS NAME
5110		+B. H. M. SCREW
5126		+B. H. TAP TITE SCREW W/WASHER
5128		+B. H. TAP TITE SCREW(B TYPE)
5149		+B. H. M. SCREW(W/ WASHER/ SP WASHER)
5204		+H. H. TAPT. BOLTS WITH FLANGE(S TITE)
5405		TOOTHED LOCK WASHERS
5411		FLAT WASHERS

MARK	MATERIAL/FINISH
(M)	STEEL/COPPER
(U)	STEEL/BLACK
(A)	STEEL/CHROMATE
(B)	STEEL/CHROMATE



8. SERVICE PROGRAM

REMARK
If these service programs are set, All user preset memories will be cleared.

1. FACTORY mode (Tracking point memory)
This **FACTORY mode** can be use for measurement of the tuner circuit.
When the product is POWER ON, press both [**MEMO**] and [**DISPLAY OFF**] buttons simultaneously over 3 seconds.
FLD shows **"FACTORY"** for 3 seconds. Press [**PRESET**] button, FLD shows **"PRESET SEL"**.
The tuning frequencies are memorized as follows.

Band	VERSION	P1	P2	P3	P4
FM AUTO [MHz]	U, K, S	90.0	98.0	106.0	87.5
	F	78.0	83.0	88.0	76.0

Band	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12
AM [kHz]	10 kHz(U)	600	1000	1400	520				
	9kHz(F, K, S)	603	999	1404	531				

2. FLD segment check mode
This mode is available to check all luminous segments by the following steps.
1. When the product is FACTORY mode (Refer to above mentioned "**1. FACTORY mode**"), press [**DISPLAY OFF**] button. FLD shows "**SERVICE**" for 2 seconds.
2. All segments and all LED light up for 5 seconds.
3. Each segment lights up step by step.
4. Press [**DISPLAY OFF**] button again, then this mode will be stopped and the product will be FACTORY mode.

3. Version of microprocessor (CPU)
This program is available to confirm the version of each CPU by the following steps.
QY01 (main) : When the product is POWER ON, press both [**CL**] and [**TREBLE ▼**] buttons simultaneously over 3 seconds. FLD shows the version of program code for QY01.
Q691 (DSP) : When the product is POWER ON, press both [**CL**] and [**BASS ▼**] buttons simultaneously over 3 seconds. FLD shows the version of program code for Q691.

4. Input and output test mode
This mode is available for the functions as shown in Fig 1 by the following steps.
1. When the product is FACTORY mode (Refer to above mentioned "**1. FACTORY mode**"), press both [**MEMO**] and [**TREBLE▼**] buttons simultaneously.
2. FLD shows "**AUTO D1**". By pressing both [**MEMO**] and [**TREBLE ▼**] buttons simultaneously each time, the mode is changed in the following order.

Fig 1 Input and output test mode

ORDER	INDICATION for FLD	MODE FUNCTION
1	AUTO D1	Input selection mode (without using system setup menu)
2	ALL CH D1	5 or 6 channels output mode (This mode is available for 2 channels input)
3	INPULSE --	This mode is development use only
4	CD/DIG1	This mode is the same status as FACTORY mode

4.1. Input selection mode (without setting to system setup menu)
This mode is available to select the input without setting to system setup menu by the following steps.
1. When FLD shows "AUTO D1"(Refer to "**4. Input and output test mode**"), the input can be shifted by pressing [**MODE**] button for the remote commander only each time as shown in Fig 2. ([**MODE**] button is in page4 of **AMP** function for RC-18SR*****)

Fig 2. Input selection order by pressing [**MODE**] button each time

ORDER	INDICATION for FLD	INPUT STATUS
1	AUTO D1	DIG. 1 IN
2	AUTO D2	DIG. 2 IN
3	AUTO D3	DIG. 3 IN
4	AUTO D4	DIG. 4 IN
5	AUTO RF	RF IN
6	AUTO CD	CD IN (Analog)

Note: Surround mode is fixed " **AUTO**" mode automatically.

4.2. 5.1 channels output mode
This mode is available to output the same signal from 5 channels, even though 2 channels audio signal comes in.
As the result, all channels output can be confirmed by using analog stereo signal or PCM audio signal.
AC-3 or DTS source is not necessary to output from any channel in this mode.

1. When FLD shows "ALL CH D1" (Refer to "**4. Input and output test mode**"), the input can be shifted by pressing [**MODE**] button for the remote commander only each time as shown in Fig 3.
([**MODE**] button is in page4 of **AMP** function for RC-18SR*****)
2. Supply to 2 channels PCM signal for digital input or 2 channels analog signal for analog input. But, Left channel and Right channel of input signal should be equal.
3. Then each output from the product is the same as the input signal. (Subwoofer channel is respond to lower than 80Hz signal)

Fig 3. Input selection order by pressing [**MODE**] button each time

ORDER	INDICATION for FLD	INPUT STATUS
1	ALL CH D1	DIG. 1 IN
2	ALL CH D2	DIG. 2 IN
3	ALL CH D3	DIG. 3 IN
4	ALL CH D4	DIG. 4 IN
5	ALL CH RF	RF IN
6	ALL CH CD	CD IN (Analog)

5. Transistor MUTE mode
In mute situation on the product, output signal is muted by Volume control IC and muting transistor.
But, this mode is available to work the muting transistor only by the following steps.
1. When the product is FACTORY mode (Refer to "**1. FACTORY mode**"), press [**MUTE**] button for remote commander only.
2. FLD shows "**TrMUTE ON**", then muting transistor circuit is active only.

6. How to reset the product
When the product is POWER ON, press both [**CL**] and [**DISPLAY OFF**] buttons simultaneously.
FLD shows "**DEFAULT**" for 3 seconds, then all memories are cleared.

Note
***** : The remote controller RC2000mkII is available instead of RC-18SR for [**MODE**] button.

9. ELECTRICAL ADJUSTMENTS

1. DC offset adjustment

Master Volume : Minimum, Speaker out : non Load

Step	Power	Channel	Adjustment Point	Test Point	Adjustment Vaule
1	on	Front L	R715	Speaker Output Terminal	± 20mV
		Center	RT15		
		Front R	RP16		
		Surr. L	RP15		
		Surr. R	R716		

Note : If the measured value is not exceed ±20mV, no need to adjust the DC offset.

2. Iding current adjustment

Master Volume : Minimum, Speaker out : non Load

Step	Power	Channel	Adjustment Point	Test Point	Adjustment Vaule
1	Power on	Front L	R743	J713 or R773	within 1 minute 0.4mV
		Center	RT43	JT13 or RT73	
		Front R	RP44	JP04 or RP74	
		Surr. L	RP43	JP03 or RP73	
2	after 4 minutes	Surr. R	R744	J714 or R774	see table for adjustment vaule
				J***:4P Connecter [between 1p-4p] R***:Emitter Resister [0.18Ω x 2]	

Time since power on	Idling current adjust.	Time since power on	Idling current adjust.
4-4 minutes 30 seconds	11.8mV	11-12 minutes	16.6mV
4m30s-5 minutes	13.1mV	12-14 minutes	15.9mV
5-5 minutes 30 seconds	14.1mV	14-16 minutes	15.4mV
5m30s-6 minutes	14.9mV	16-18 minutes	14.8mV
6-7 minutes	15.5mV	18-22 minutes	13.5mV
7-8 minutes	16.2mV	22-26 minutes	12.2mV
8-9 minutes	16.5mV	26-30 minutes	11.0mV
9-10 minutes	17.0mV	more than 30 minutes	10.0mV
10-11 minutes	16.8mV		The taget is 7.2mV

3. Thermostat circuit confirmation

1) When the product is POWER ON, remove the wire W701 from the connector J715 (P704).
2) FLD shows "**ERROR PWR1**".
3) Confirm the product is POWER OFF after 3 seconds.
4) Connect the wire W701 to the connector J715 (on P704).
5) Confirm the product is standby status.

4. Cooling fan confirmation

4.1 Fan failure sensor confirmation

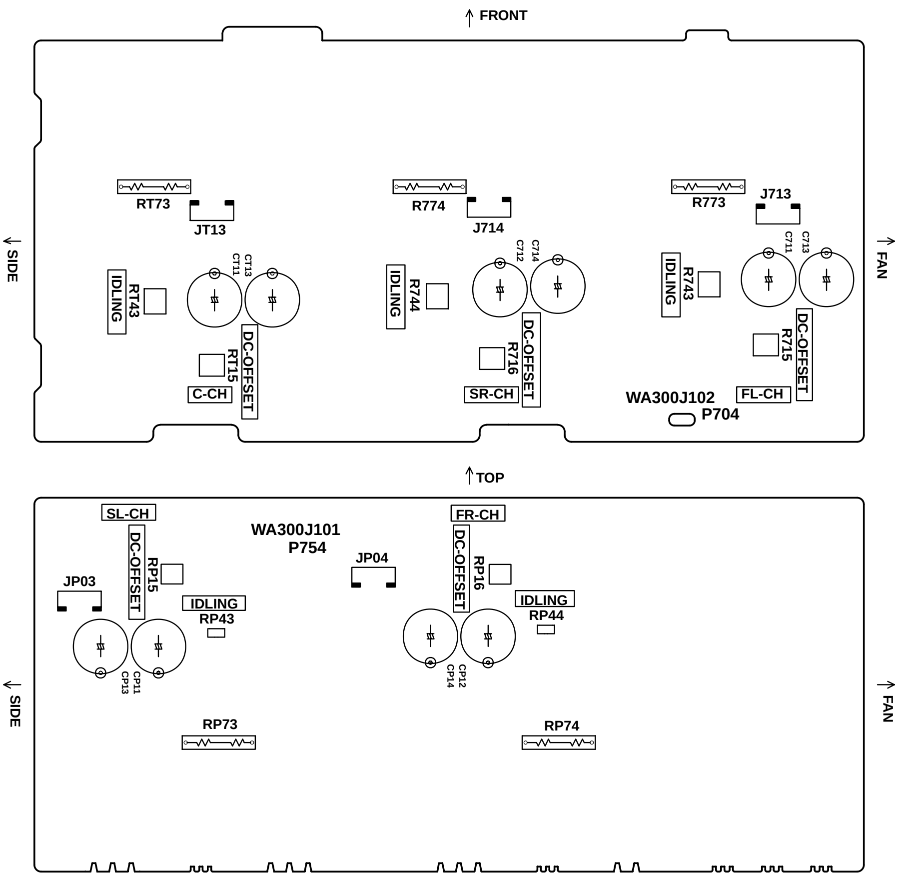
1) Set to be SPK output 1W from the front channel.
2) Connect the 1pin (LOCK) of the connecter JN10 (on P754) to chassis (GND level) by a wire.
3) After 6 seconds the SPK relay works, and the SPK output isn't output.

4.2 Temperature sensor confirmation

1) Connect a resistor (470ohm 1W) between JN10 3pin (T-2CH) and DC +12V.
2) Confirm the cooling fan starts working. (Status : JN09 between 1pin and 2pin = **+7.5V**, Fan speed = **Low**)
3) Remove the resistor.
4) Confirm the cooling fan stops.
5) Connect the resistor between JN10 4pin (T-3CH) and DC +12V.
6) Confirm the cooling fan starts working again.
7) Remove the resistor.
8) Confirm the cooling fan stops.
9) Connect the resistor between JN10 3pin (T-2CH) and DC +12V. And then connect another resistor between JN10 4pin (T-3CH) and DC +12V.
10) Confirm the cooling fan starts working.
11) And then connect the resistor between JN10 2pin (SPEED) and DC +12V.
12) Confirm the cooling fan changes to work with high speed. (Status : JN09 between 1pin and 2pin = **+11.5V**, Fan speed = **High**)

4.3 Fan catching a foreign body sensor confirmation

1) Connect the resistor (470ohm 1W) between JN10 3pin (T-3CH) and DC +12V.
2) Confirm the cooling fan starts working. (Status : JN09 between 1pin and 2pin=**+7.5V**, Fan speed = **Low**)
3) Set to be SPK output 1W from the front channel.
4) Hold the cooling fan by hand and stop it.
   Notes: Take care of wound in the hand!
5) After 6 seconds the SPK relay works and the SPK output isn't output.



10. ALIGNMENT PROCEDURES

1. AM IF Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 kHz (K, S, F) 1000 kHz (U)	Level 300 µV/m (50dB/m) Mod. 400 Hz 30%	Tuning point	LA06	Output level (L or R) **Maximum** at TAPE-OUT

REMARK: For receiving antenna, the adapted one is available.
This adjustment is not necessary normally, because the coil LA06 is preset by the original supplier.
It is necessary when the incorrect usable sense and frequency response.

2. AM (MW) Tracking Adjustment

Step	**Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	603 kHz (K, S, F) 600 kHz (U)	Level 300 - 400 µV/m Mod. 400 Hz 30%	603 kHz (K, S, F) 600 kHz (U)	LA01	Output level (L or R) **Maximum** at TAPE-OUT
2		1404 kHz (K, S, F) 1400 kHz (U)	Level 300 - 400 µV/m Mod. 400 Hz 30%	1404 kHz (K, S, F) 1400 kHz (U)	CA01	Output level (L or R) **Maximum** at TAPE-OUT
3	Repeat step 1 and 2 until sensitivity be maximized.					

3. AM (LW) Tracking Adjustment [N version]

Step	**Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	171 kHz	Level 300 - 400 µV/m Mod. 400 Hz 30%	171 kHz	LA03	Output level (L or R) **Maximum** at TAPE-OUT
2		270 kHz	Level 300 - 400 µV/m Mod. 400 Hz 30%	270 kHz	CA08	Output level (L or R) **Maximum** at TAPE-OUT
3	Repeat step 1 and 2 until sensitivity be maximized.					

4. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 kHz (K, S, F) 1000 kHz (U)	500 µV/m (54 dB/m)	999 kHz (K, S, F) 1000 kHz (U)	RA11	**"TUNED"** indicate on FLD
2			1000 µV/m (60 dB/m)	AUTO SCAN	Only Confirm	**"TUNED"** indicate on FLD

5. FM MONO. Distortion Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (K, S, U) 83 MHz (F)	500 µV (54 dB) MONO 1 kHz / Dev.40kHz 53.3% (K, S) MONO 1 kHz / Dev. 75 kHz 100% (U, F)	98 MHz (P2)	L201	Distortion level **Minimum** at TAPE-OUT

6. FM Muting Level Adjustment

Turn the variable resistor **R212** to no indication ("TUNED") point. And return that valuable resistor in opposite to the **"TUNED"** indicate point.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (K, S, U) 83 MHz (F)	10 µV (20 dB) MONO 1 kHz / Dev.40 kHz 53.3% (K, S) MONO 1 kHz / Dev. 75 kHz 100% (U, F)	98 MHz (P2) 83 MHz (P2)	R212	**"TUNED"** indicate on FLD
2			Over mentioned level **+3 dB**	AUTO SCAN	Only Confirm	**"TUNED"** indicate on FLD

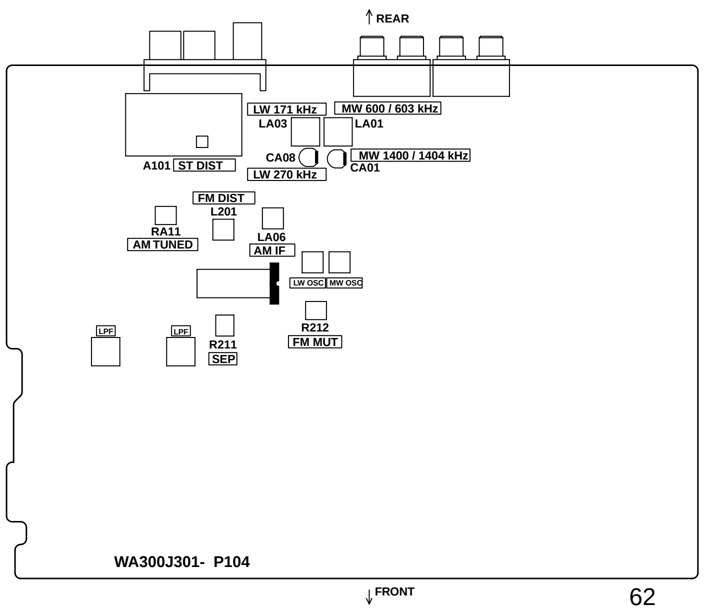
7. FM STEREO Distortion Adjustment

Adjust the **L channel** with the RF signal modulated only **L channel** first and confirm the **R channel** with the RF signal modulated only **R channel**.

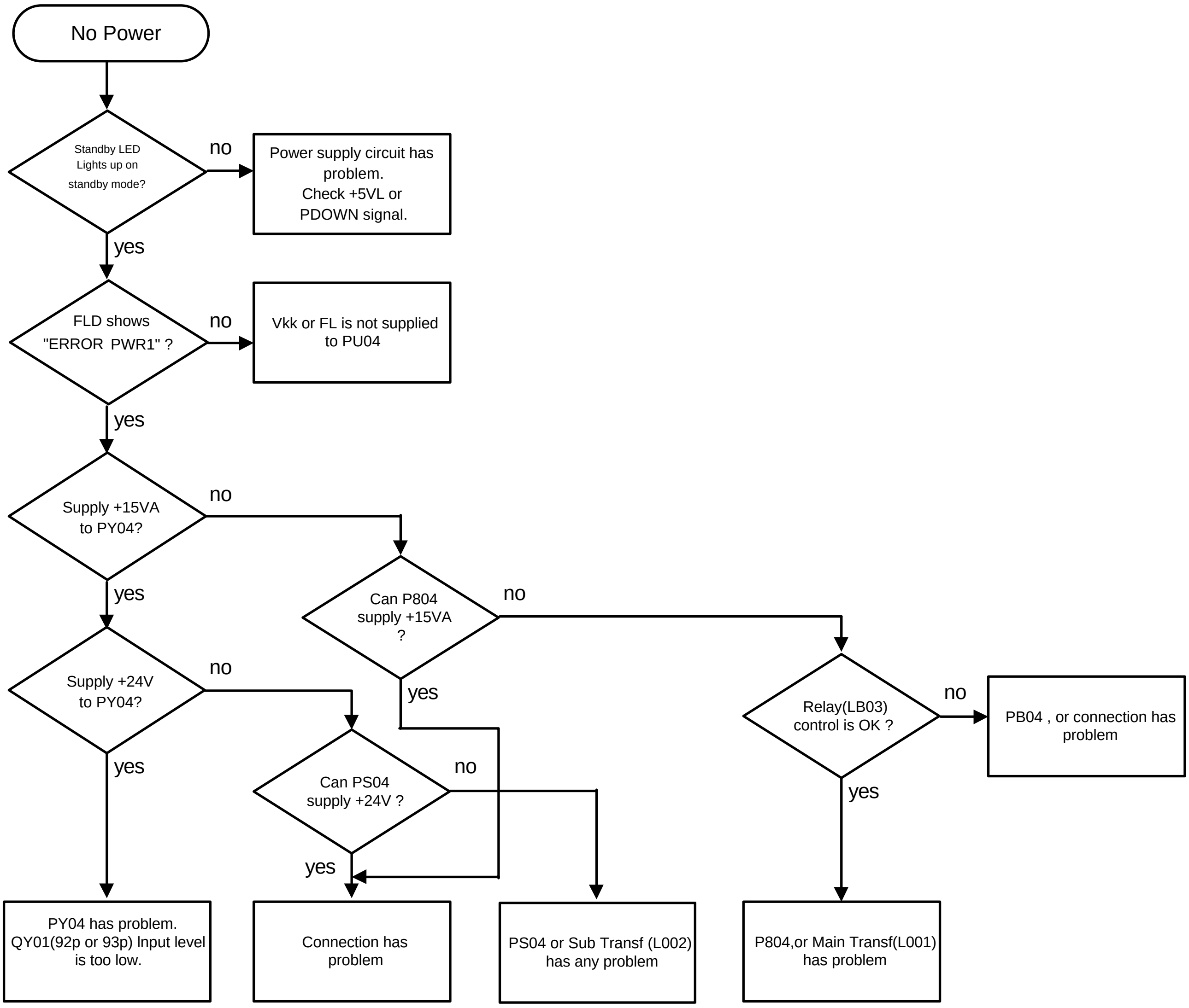
Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (K, S, U) 83 MHz (F)	500 µV (54 dB) L or R 1 kHz / Dev. 40 kHz 53.3% PILOT 19 kHz / Dev. 6 kHz 8% (K, S) L or R 1 kHz / Dev. 67.5 kHz 90% PILOT 19 kHz / Dev. 6.75 kHz 9% (U, F)	98 MHz (P2) 83 MHz (P2)	IF COIL in FRONT END	Distortion level **Minimum** at TAPE-OUT
2					Only Confirm	Distortion level **Simimlar** as L ch. at TAPE-OUT R ch.

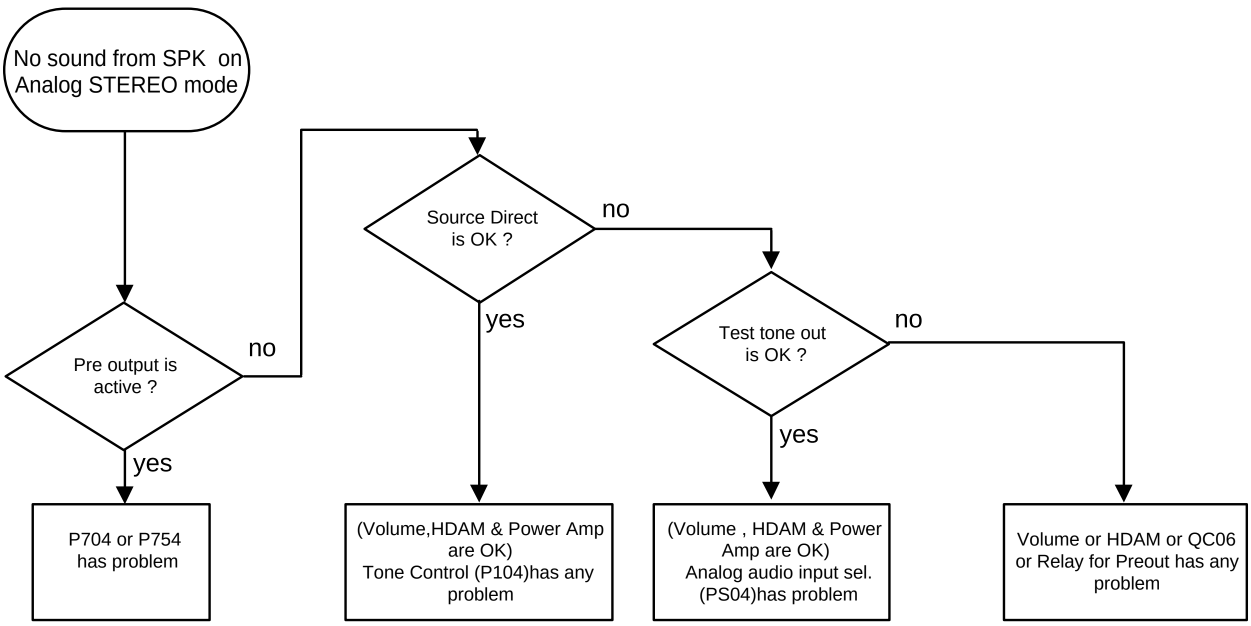
8. FM STEREO Separation Adjustment

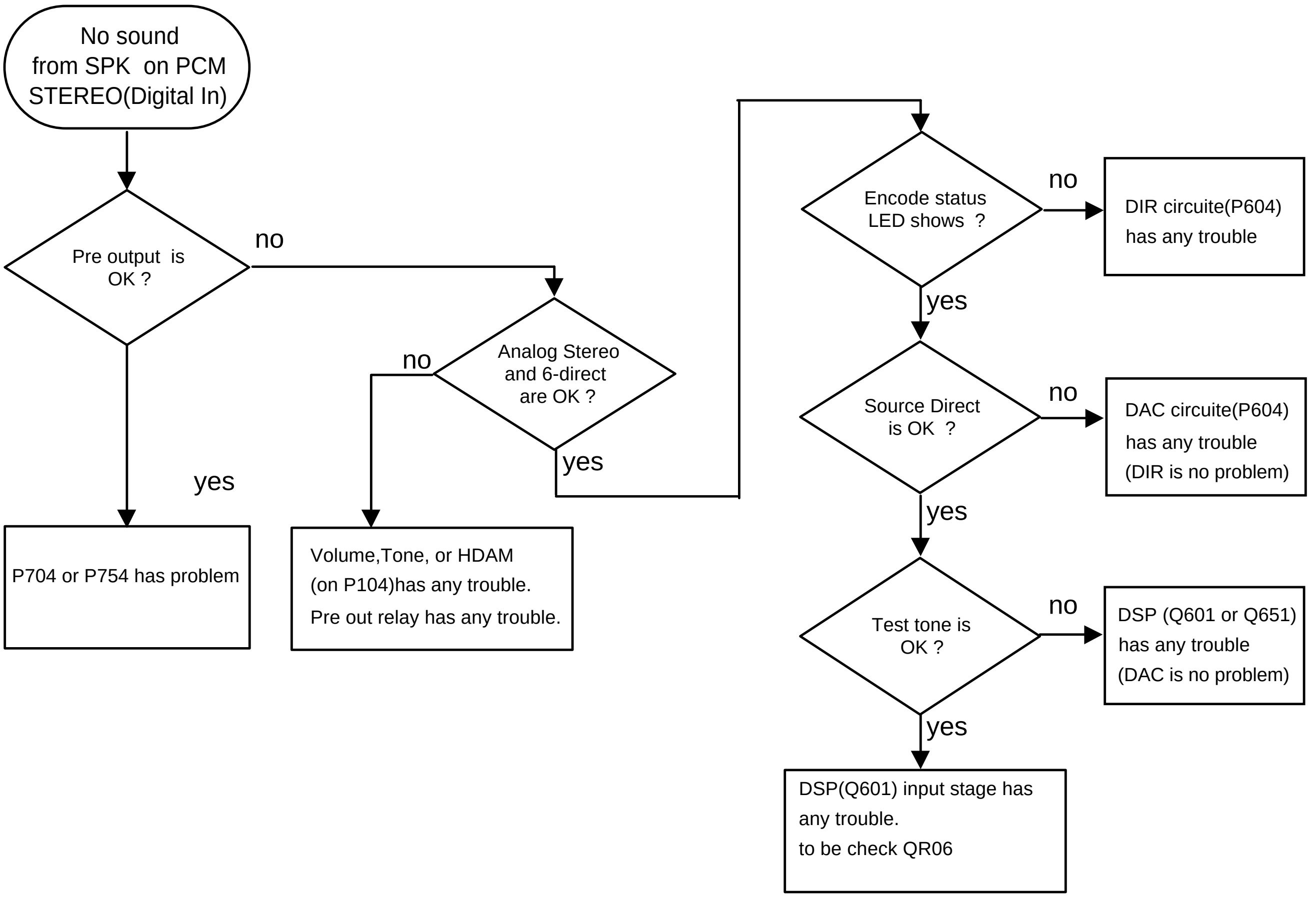
Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (K, S, U) 83 MHz (F)	same specification as **FM STEREO distortion adjustment**. Input only **L** channel.	98 MHz (P2) 83 MHz (P2)	R211	Output level **Minimum** at TAPE-OUT channel **R**
2		98 MHz (K, S, U) 83 MHz (F)	same specification as **FM STEREO distortion adjustment**. Input only **R** channel.	98 MHz (P2) 83 MHz (P2)	R211	Output level **Similar** as Rch at TAPE-OUT channel **L**

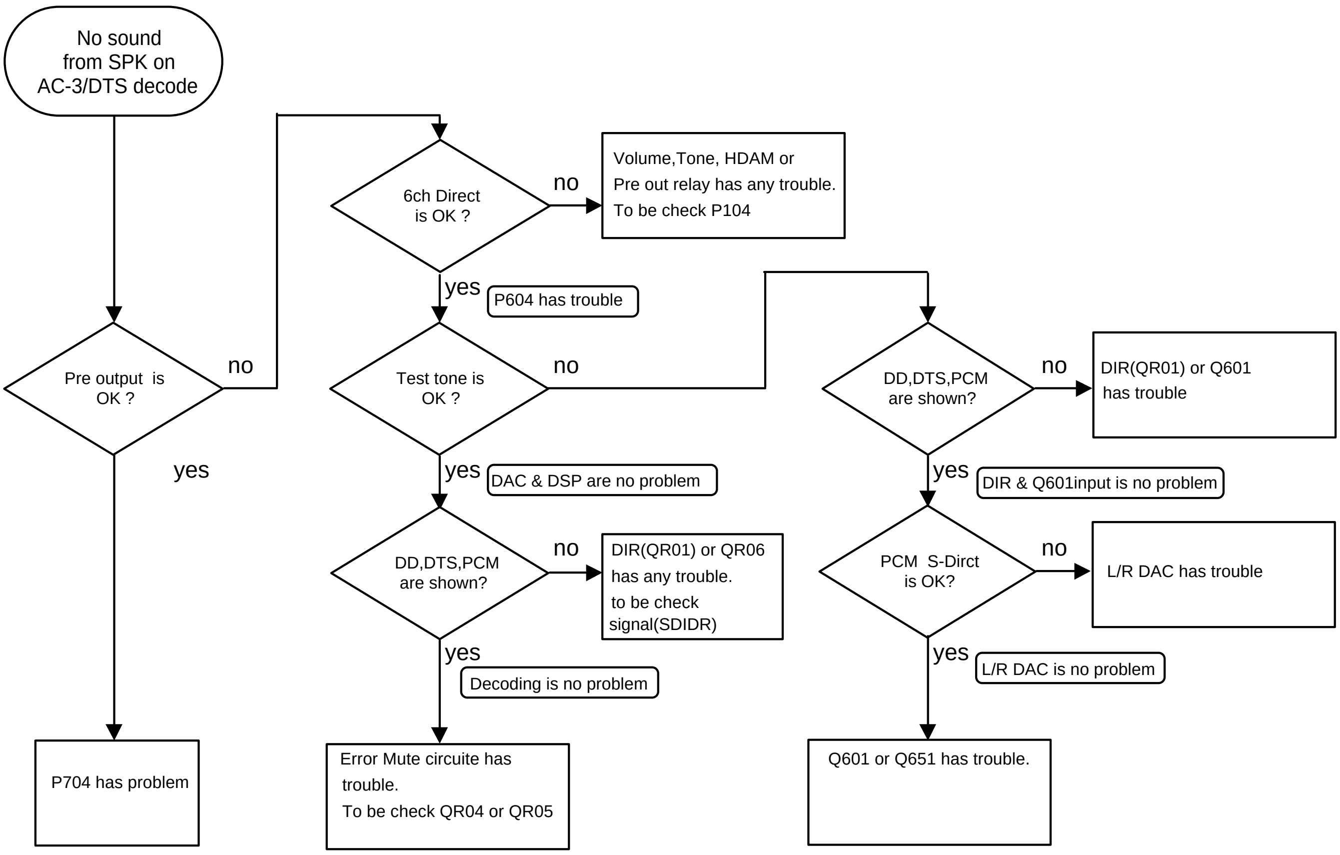


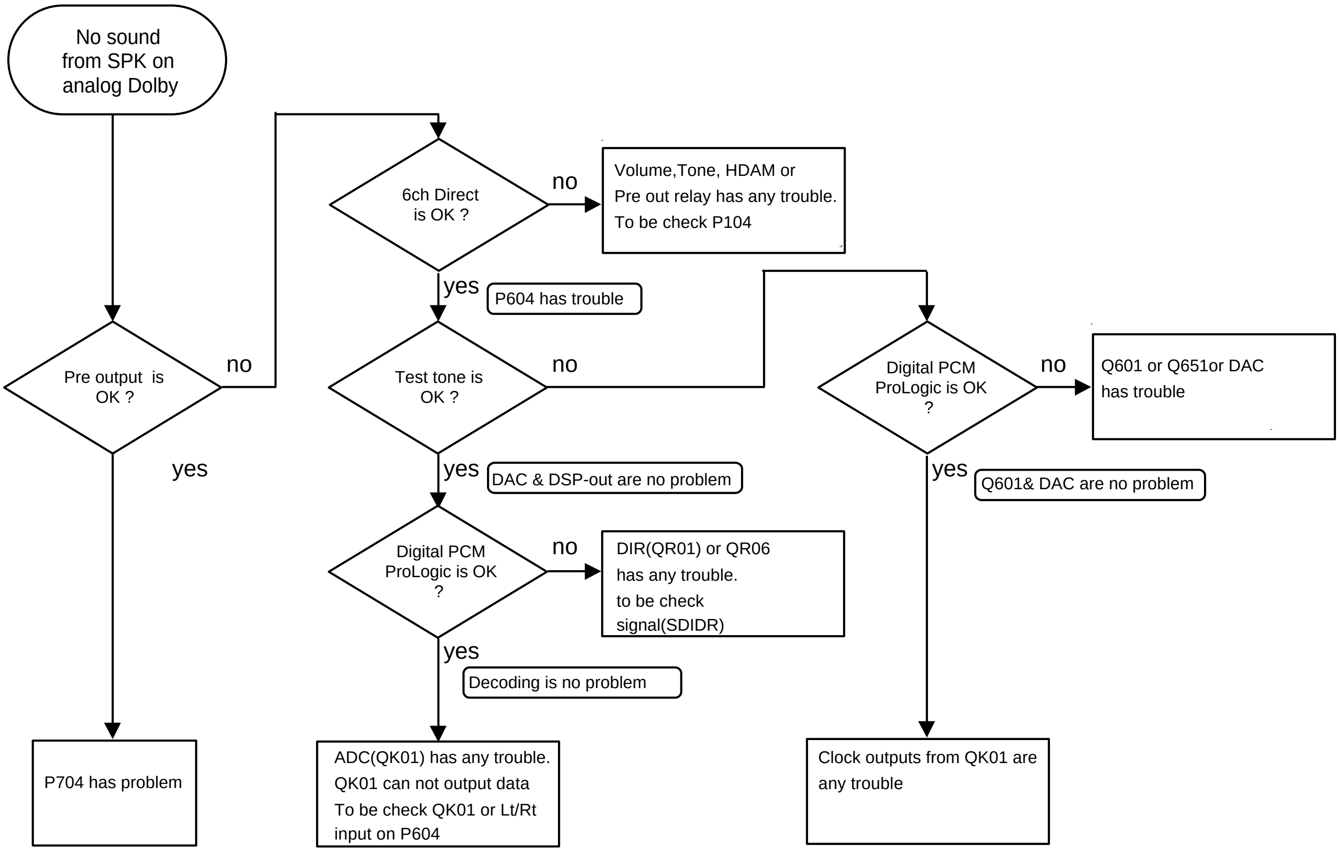
11. TROUBLE SHOOTING

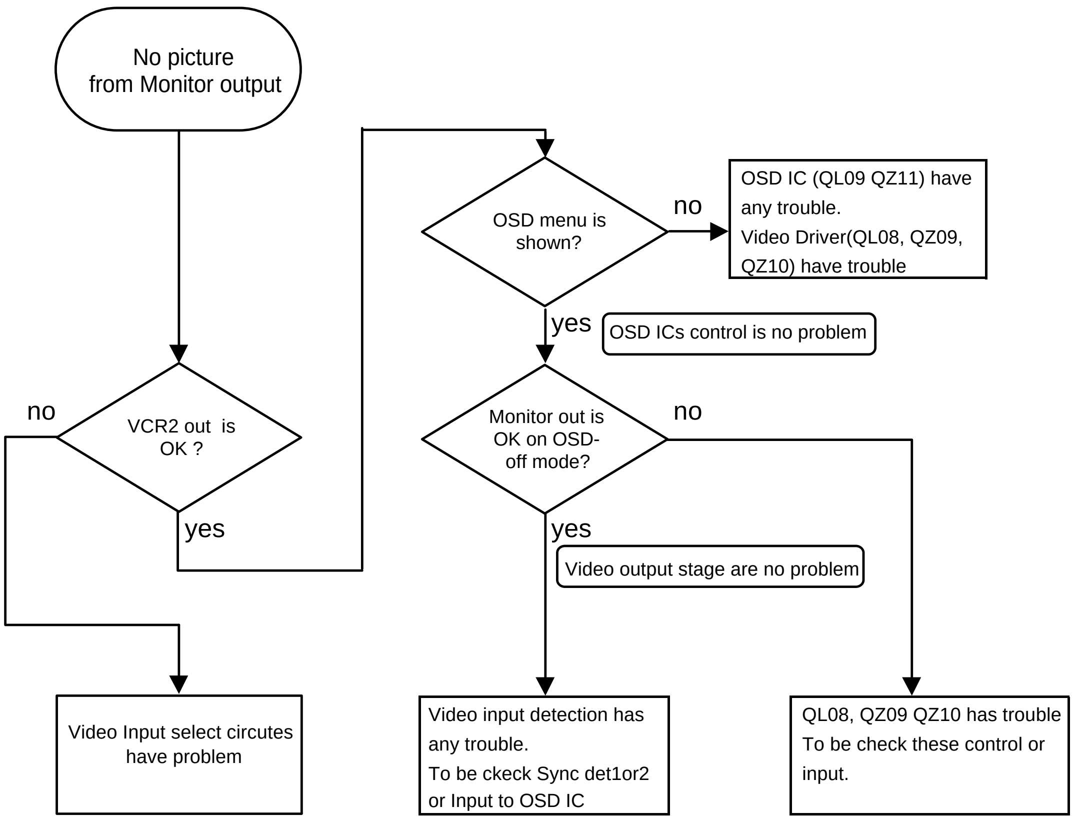





No sound
from SPK on PCM
STEREO(Digital In)
Pre output is
OK ?
no
yes
P704 or P754 has problem
Analog Stereo
and 6-direct
are OK ?
no
yes
Volume,Tone, or HDAM
(on P104)has any trouble.
Pre out relay has any trouble.
Encode status
LED shows ?
no
DIR circuite(P604)
has any trouble
yes
Source Direct
is OK ?
no
DAC circuite(P604)
has any trouble
(DIR is no problem)
yes
Test tone is
OK ?
no
DSP (Q601 or Q651)
has any trouble
(DAC is no problem)
yes
DSP(Q601) input stage has
any trouble.
to be check QR06


No sound
from SPK on
AC-3/DTS decode
Pre output is
OK ?
no
yes
P704 has problem
6ch Direct
is OK ?
no
Volume,Tone, HDAM or
Pre out relay has any trouble.
To be check P104
yes
P604 has trouble
Test tone is
OK ?
no
yes
DAC & DSP are no problem
DD,DTS,PCM
are shown?
no
DIR(QR01) or QR06
has any trouble.
to be check
signal(SDIDR)
yes
Decoding is no problem
Error Mute circuite has
trouble.
To be check QR04 or QR05
DD,DTS,PCM
are shown?
no
DIR(QR01) or Q601
has trouble
yes
DIR & Q601input is no problem
PCM S-Dirct
is OK?
no
L/R DAC has trouble
yes
L/R DAC is no problem
Q601 or Q651 has trouble.


No sound from SPK on analog Dolby
Pre output is OK ?
no
yes
P704 has problem
6ch Direct is OK ?
no
Volume,Tone, HDAM or Pre out relay has any trouble. To be check P104
yes
P604 has trouble
Test tone is OK ?
no
yes
DAC & DSP-out are no problem
Digital PCM ProLogic is OK ?
no
DIR(QR01) or QR06 has any trouble. to be check signal(SDIDR)
yes
Decoding is no problem
ADC(QK01) has any trouble. QK01 can not output data To be check QK01 or Lt/Rt input on P604
Digital PCM ProLogic is OK ?
no
Q601 or Q651or DAC has trouble
yes
Q601& DAC are no problem
Clock outputs from QK01 are any trouble


No picture from Monitor output
VCR2 out is OK ?
no
yes
Video Input select circutes have problem
OSD menu is shown?
no
OSD IC (QL09 QZ11) have any trouble. Video Driver(QL08, QZ09, QZ10) have trouble
yes
OSD ICs control is no problem
Monitor out is OK on OSD-off mode?
no
yes
Video output stage are no problem
Video input detection has any trouble. To be ckeck Sync det1or2 or Input to OSD IC
QL08, QZ09 QZ10 has trouble To be check these control or input.

12. TECHNICAL DESCRIPTION

This product has two DSP ICs, one is for Dolby Digital (AC-3) decoding or DTS (Digital Theater System) decoding, another is for THX processing.
Multi channel sound is reproduced by connecting with DVD player or LD player.
Also Dolby Pro Logic decode is available to analog audio and PCM digital audio.
Additionally, 96kHz PCM stereo audio playback is possible.
Decoding circuit is consist of 13 ICs (DIR, two DSP, ADC, five DAC, AC-3 RF demodulator, two data separator and CPU).

DOLBY DIGITAL (AC-3)

Dolby Digital delivers six totally separate (discrete) channels of sound. Like Dolby Surround Pro Logic, it includes Left, Center and Right channels across the front of the room. Dolby Surround Pro Logic provides a single limited-bandwidth (100 Hz to 7,000 Hz) surround channel which is typically played back in the home through two channels of amplification and two speakers. In comparison, Dolby Digital provides separate (discrete) left surround and right surround channels, for more precise localization of sounds and a more convincing, realistic ambience. And, with Dolby Digital, all five main channels are full range (3 Hz to 20,000 Hz). A subwoofer could be added to each channel, if desired.
The sixth channel, the Low Frequency Effects Channel, will, at times, contain additional bass information to maximize the impact of scenes such as explosions, crashes, etc. Because this channel has only a limited frequency response (3 Hz to 120 Hz), it is sometimes referred to as the “.1” channel. When added to the 5 full range channels, the Dolby Digital system is sometimes referred to as having “5.1” channels.

DTS

An amazing new technology for surround-sound entertainment, DTS Digital Surround is an encode/decode system that delivers six channels (5.1) of master-quality, 20-bit audio. In the encoding process, the DTS algorithm encrypts six channels of 20-bit digital audio information in the space previously allotted for only two channels of 16-bit linear PCM. Then during playback, the DTS decoder reconstructs the original six channels of 20-bit digital audio. Each of these six channels is audibly superior to the 16-bit linear PCM audio found on conventional compact discs.

THX ULTRA

Home THX Controller Technologies : Dubbing stages (where soundtracks are created) and movie theatres do not change their acoustics, equipment, or system equalization when mixing or playing back 5.1 channel sound tracks. They merely divide the surround array of speakers into two symmetrical arrays (hence the term “split surround”). All of the remaining system equalization and setup remains the same. The Home THX Technologies of Re-Equalization, Timbre Matching, and Decorrelation, as well as the Home THX Crossover are still necessary for 5.1 channel formats. Because of the nature of the split surround soundtrack, Home THX Timbre Matching and Decorrelation technologies have been altered to provide correct surround sound balance and spaciousness. Here is a representation of how Home THX Controller Technologies work with the various surround sound formats.

DIR (Digital audio Interface Receiver : QR01 / CS8414)

This circuit extract synchronized clock signals and data from SPDIF signal input.
QR01(CS8414) generates these signals, this chip supports 96kHz sample rate.

1st DSP (Digital Signal Processor for Dolby Digital, Pro Logic, DTS : Q601 / YSS912)

Q601(YSS912) decodes 6 channels audio from encoded data signal input.
Some effects are processed in addition to multi channel decoding on HALL, MATRIX, and MOVIE mode.

2nd DSP (Digital Signal Processor for THX processing : Q651 / ZR38600)

Q651(ZR38600) has the THX 5.1 processing functions. These functions include **Re-equalization, Surround Timbre-Matching, Adaptive Decorrelation, Bass Management, Bass Peak Level Manager,** and **Loudspeaker Position Time Synchronization.**

Re-equalization takes the edginess or "brightness" out of your home cinema sound, compensating for the fact that sound mixed for theatres will sound too bright when played back through flat response speakers in your home.

Timbre Matching matches the tone of your front speakers to your surrounds to compensate for the fact that only two surround speakers are used in a typical Home Theatre system instead of a full array as in a movie theatre.

Adaptive Decorrelation gives a stereo "feel" when your surrounds are playing mono and automatically switches off when they are playing stereo.

Bass Management Electronic Crossover allows you to use more compact, easier-to-place speakers, while sending bass to a subwoofer system, improving frequency response, lowering distortion and increasing dynamic range.

Bass Peak Level Manager protects your subwoofer from overloading due to the great amount of bass a 5.1 soundtrack delivers.

Loudspeaker Position Time Synchronization lets you easily set up your system for an optimum listening position, which is difficult to achieve within the space constraints of most homes.

ADC (Analog to Digital Converter : QK01 / CS5394)

CS5394 is a complete analog-to-digital converter for stereo digital audio systems. it performs sampling, analog-to-digital conversion and anti-alias filtering, generating 24 bit values for both left and right inputs in serial form.

DAC (Digital to Analog Converter : QD01, QD02, QD03 / AD1855)

The AD1855 is a high performance, single-chip stereo,audio DAC. There are five AD1855 chips on the board. Four chips are used for L, R, C, and Sub woofer channel individually. Another chip is used for Surround Left & Right.

CPU (Q691 / µPD78018)

This chip controls some ICs in P604 and communicates with QU01.

Connect to QU01 with serial interface lines.

13. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R∗∗∗: 1) GD05××× 140, Carbon film fixed resistor, ±5% 1/4W
R∗∗∗: 2) GD05××× 160, Carbon film fixed resistor, ±5% 1/6W
① —— Resistance value

Examples ;
①Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C∗∗∗: CERAMIC CAP.
3) DD1×××× 370, Ceramic capacitor
Disc type
Temp.coeff.P350 ～N1000, 50V
② ③
③ —— Capacity value
② —— Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5

∗ Tolerance of COMMON PARTS handled here are as follows :
0.5 pF～ 5 pF .... ±0.25 pF
6 pF～ 10 pF .... ±0.5 pF
12 pF～ 560 pF .... ±5%

③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101
1 pF 010	10 pF 100	220 pF 221
1.5 pF 015	47 pF 470	560 pF 561

C∗∗∗ : CERAMIC CAP.
4) DK16××× 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ —— Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C∗∗∗ : 5) ELECTROLY CAP. ( ), 6) FILM CAP. ( )
5) EA×××××× 10, Electrolytic capacitor
One-way lead type, Tolerance ±20%
⑤ ⑥
⑥ —— Working voltage
⑤ —— Capacity value

Examples ;
⑤ Capacity value

0.1 μF 104	4.7 μF 475	100 μF 107
0.33 μF 334	10 μF 106	330 μF 337
1 μF 105	22 μF 226	1100 μF 118
		2200 μF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

6) DF15××× 350 ⟶ Plastic film capacitor
DF15××× 310 ┘ One-way type, Mylar ±5% 50V
DF16××× 310 ⟶ Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ —— Capacity value

Examples ;
⑦ Capacity value

0.001 μF(1000 pF) 102	0.1 μF 104
0.0018 μF 182	0.56 μF 564
0.01 μF 103	1 μF 105
0.015 μF 153	

NOTE : 1) The above CODES (R∗∗∗ , R∗∗∗ , C∗∗∗ , C∗∗∗ and C∗∗∗) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to “Common Parts List” for the other common parts (**RI05**, **DD4**, **DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)		Type No. (KOA)	Description
NH05××× 140	⟶	RF25S××××ΩJ	(±5% 1/4W)
NH05××× 120	⟶	RF50S××××ΩJ	(±5% 1/2W)
NH85××× 110	⟶	RF73B2A××××ΩJ	(±5% 1/10W)
NH95××× 140	⟶	RF73B2E××××ΩJ	(±5% 1/4W)

∗ Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)		Type No. (MEC)	Description
NF05××× 140	⟶	ERD-2FCJ×××	(±5% 1/4W)
RF05××× 140	┘		
NF02××× 140	⟶	ERD-2FCG×××	(±2% 1/4W)
RF02××× 140	┘		

∗Resistance value — ∗Resistance value

Examples ;
∗Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
μ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRAMSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P104-FM/AM TUNER	
			TONE VOL.CIRCUIT BOARD	
			P104-CAPACITORS	
CA01		4822 125 50384	TRIM. 20pF VCT51E	CT12000200
CA02		4822 122 40306	CER. 0.047µF +80%-20% 50V	DK18473310
CA03		4822 122 31823	CER. 15pF ±5% CH 50V BLK	DD15150300
CA04		4822 121 42466	FILM 390pF 100V ECQ-P	DF15391550
CA05		4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CA06		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CA18		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CC07		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC08		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC18		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC23 ~ CC26		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC27	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CC28	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CC31		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CC32		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CC33		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CC34		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CC35		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC36		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC39		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC40		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC41		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC42		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC43	/S	4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CC43	/U	4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CC44		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CC47		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC48		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC51		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC52		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC55		4822 122 31237	CER. 82pF ±5% 50V	DD15820300
CC56		4822 122 31237	CER. 82pF ±5% 50V	DD15820300
CC57		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC58		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC59		4822 124 90354	ELECT. 100µF 16V	OA10701620
CC60		4822 124 90354	ELECT. 100µF 16V	OA10701620
CC61		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC62		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CC71		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC72		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CC75		9965 000 01344	FILM 100pF ±5% 100V APSV	OF15101540
CC76		9965 000 01344	FILM 100pF ±5% 100V APSV	OF15101540
CC77		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CC78		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CC79		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CC80		4822 122 30043	CER. 10pF +80%-20% 50V	DK18103310
CC81		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CC82		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CF01		4822 124 90358	ELECT. 22µF M 16V	OA22601620
CF02		4822 124 90358	ELECT. 22µF M 16V	OA22601620
CF03		4822 122 31237	CER. 82pF ±5% 50V	DD15820300
CF04		4822 122 31237	CER. 82pF ±5% 50V	DD15820300
CF05		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF06		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF15		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF16		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF17		4822 124 90358	ELECT. 22µF M 16V	OA22601620
CF18		4822 124 90358	ELECT. 22µF M 16V	OA22601620
CF19		4822 126 10364	CER. 100pF ±10%	DA16101110
CF20		4822 126 10364	CER. 100pF ±10%	DA16101110
CF21		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF22		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF31		4822 124 22571	ELECT. 10µF 50V	OA10605020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CF32		4822 124 22571	ELECT. 10µF 50V	OA10605020
CF33		4822 124 90354	ELECT. 100µF 16V	OA10701620
CF34		4822 124 90354	ELECT. 100µF 16V	OA10701620
CF35		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CF36		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CF37		4822 124 90354	ELECT. 100µF 16V	OA10701620
CF38		4822 124 90354	ELECT. 100µF 16V	OA10701620
CF39		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CF40		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CG51 ~ CG56		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CG57		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CG59		4822 124 90354	ELECT. 100µF 16V	OA10701620
CG60		4822 124 90354	ELECT. 100µF 16V	OA10701620
CG61		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CG62		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CG63 ~ CG66		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CG67		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CG68		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CG69		4822 124 90354	ELECT. 100µF M 16V	OA10701620
CG70		4822 124 90354	ELECT. 100µF M 16V	OA10701620
CG71		4822 122 40586	CER. 0.01µF ±20%	DA17103110
CG72		4822 122 40586	CER. 0.01µF ±20%	DA17103110
CV01		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CV02		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
C201		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C202		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C203		4822 122 40306	CER. 0.047µF +80%-20% 50V	DK18473310
C204		4822 122 40306	CER. 0.047µF +80%-20% 50V	DK18473310
C205		4822 124 42182	ELECT. 3.3µF M 50V	OA33505020
C206		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C207		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C208		4822 122 40306	CER. 0.047µF +80%-20% 50V	DK18473310
C209		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C210		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C211		4822 124 90357	ELECT. 2.2µF M 50V RA-2	OA22505020
C212		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
C213		4822 124 22273	ELECT. 0.47µF M 50V RA-2	OA47405020
C214		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
C215		4822 122 40306	CER. 0.047µF +80%-20% 50V	DK18473310
C216		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
C218		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C219		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C223		4822 122 40586	CER. 0.01µF ±20%	DA17103110
C225		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C226		4822 122 40586	CER. 0.01µF ±20%	DA17103110
C233		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C234		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
C235		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C236		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C237		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C303		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C304		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C305	/K, /S	4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
C305	/U		JUMPER	75060501P0
C306	/K, /S	4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
C306	/U		JUMPER	75060501P0
C311		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
C312		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
C313	/K, /S	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
C314	/K, /S	4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
C315	/K, /S	4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C316	/K, /S	4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C351	/S	4822 122 40586	CER. 0.01µF ±20% 50V	DA17103110
C352	/S	4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C356	/S	4822 126 11553	CER. 15pF ±5% 50V	DA15150120
C357	/S	4822 126 11553	CER. 15pF ±5% 50V	DA15150120
C358	/S	4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C361 ~ C364	/S	4822 126 10364	CER. 100pF ±10%	DA16101110
C365	/S	4822 124 41539	ELECT. 47µF M 16V	OA47601620
C366	/S	4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
C373	/S	4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C374	/S	4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
C501		4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
C502		4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
C503		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C504		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C505		4822 124 90357	ELECT. 2.2µF M 50V	OA22505020
C507		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C508		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
C511		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
			P104-CAPACITORS (COMMON)	
C***			HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : C220 C222 C227[U] C317[/K,/S] C318[/K,/S] C353[/S] C354[/S] C367 C368 C371 C372 C510 CC83 CC89-CC92[/S] CV03 CV05-CV07	
C***			PLASTIC FILM CAPACITOR ±5% 50V : C217 C301 C302 C309[/K] C310[/K] CC01-CC04 CC14-C17 CC75 CC76 CF07-CF14 CF23-CF30	
			P104-RESISTORS	
RA11		4822 100 11351	TRIM. 10kΩ RH0638CJ4R	RA01030780
RC01			JUMPER	75060501P0
RC02			JUMPER	75060501P0
RC16			JUMPER	75060501P0
RC19			JUMPER	75060501P0
RC51			JUMPER	75060501P0
RC52			JUMPER	75060501P0
RC91			JUMPER	75061251P0
RC92			JUMPER	75061251P0
RF37			JUMPER	75060501P0
RF38			JUMPER	75060501P0
RF39			JUMPER	75060501P0
RF40			JUMPER	75060501P0
RG55			JUMPER	75060501P0
RG56			JUMPER	75060501P0
RG59			JUMPER	75060501P0
RG60			JUMPER	75060501P0
⚠ R101	/U	4822 050 21003	10kΩ ±5% 1/2W	GG05103120
R201	/U		JUMPER	75060501P0
⚠ R207		4822 050 21801	180Ω ±5% 1/4W	GG05181140
R211	/K, /S	4822 100 11352	TRIM. 22kΩ RH0638CJ4R	RA02230780
R211	/U	4822 100 11351	TRIM. 10kΩ RH0638CS3R	RA01030780
R212		4822 100 11351	TRIM. 10kΩ RH0638CS3R	RA01030780
⚠ R217		4822 050 21801	180Ω ±5% 1/4W	GG05181140
R301	/U		JUMPER	75060501P0
R302	/U		JUMPER	75060501P0
R303	/U		JUMPER	75060501P0
R304	/U		JUMPER	75060501P0
⚠ R313	/K, /S	4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ R314	/K, /S	4822 116 83929	220Ω ±5% 1/4W	GG05221140

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R356	/S	4822 053 10471	470Ω ±5% 1W	GA05471010
⚠ R512		4822 053 10271	270Ω ±5% 1W	GA05271010
			P104-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R201[/K,/S] R202-R206 R208-R210 R213-R216 R220 R221[/S] R301-R304[/N,/S] R307-R310 R315 R316 R352-R354[/S] R357[/S] R502 R504-R507 R508[/S] R509-R511 R513 R515 RA01 RA02 RC03-RC18 RC20-RC33 RC35-RC42 RC53-RC62 RC71-RC82 RF01-RF36 RF39-RF46 RF48 RF49 RG51-RG54 RV01-RV14	
			P104-SEMICONDUCTORS	
DA01		4822 125 50416	VARICAP SVC342-L	HD40009030
DA02			JUMPER	75060501P0
DA05		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DA06		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DF01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DF02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DF03		9965 000 01363	DIODE 1SS201	HE10201050
DF04		9965 000 01363	DIODE 1SS201	HE10201050
DV05 ~ DV13		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D201		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D202		4822 130 80319	ZENER DIODE 9.1V	HD30911000
D351	/S	4822 130 80317	ZENER DIODE 5.1V	HD30511000
D501		4822 130 80317	ZENER DIODE 5.1V	HD30511000
D516		4822 130 32362	DIODE 1S133	HD20002000
QC01 ~ QC05		4822 209 73064	IC NJM2068DD	HC10053090
QC06		4822 209 32554	IC LC78213	HC10310030
QC07		4822 209 62784	IC TC9215P	HC10262050
QC51		4822 209 73064	IC NJM2068DD	HC10053090
QC71		4822 209 31153	IC NJM2114D	HC10111090
QC72		4822 209 62784	IC TC9215P ANALOGUE SW.	HC10262050
QF01		4822 209 31153	IC NJM2114D	HC10111090
QF02		9965 000 01365	IC TC9184AP ELE.TONE	HC10444050
QF03		4822 209 73064	IC NJM2068DD	HC10053090
QF04		9965 000 01365	IC TC9184AP ELE.TONE	HC10444050
QG51		9965 000 01373	IC TC9459F ELE-VOL. BULK	HC10449050
QG52		9965 000 01373	IC TC9459F ELE-VOL. BULK	HC10449050
QG53		9965 000 01373	IC TC9459F ELE-VOL. BULK	HC10449050
QG54		4822 209 17155	IC NJM2068M	HC10102090
QG55		4822 209 17155	IC NJM2068M	HC10102090
QV01		4822 209 90532	IC NJU3713D	HC10161090
QV02 ~ QV05		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QV06		4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k	BA20001000
QV07 ~ QV12		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
Q201		9965 000 01369	IC LA1837 FM/AM IF/MPX IC	HC10384030

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
Q202		4822 130 62294	TRS.2SC1809S P	HT318091P0
			150MW 500MHz	
Q203		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
Q204		4822 130 42594	DIG.TRS.	BA20002000
			DTC144ES UN4213 47k 47k	
Q209	/S	4822 130 41947	TRS.2SC2458 2SC1740S	HT30001000
			2SC3199 ETC	
Q301	/K,/S	4822 209 83631	IC NJM4558D-D	HC10008090
Q351	/S	4822 209 16175	IC LC72720L RDS DECODER	HC10385030
Q352	/S	4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
Q353	/S	4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
Q501		9965 000 01370	IC LC72130	HC10394030
			P104-MISCELLANEOUS	
A101	/K,/S U	9965 000 01368	VHF TUNER TFFJ4E	AV00903010
FA01			CER. FILTER SFZ450JL3 451K	FF10045410
F201	/K	4822 242 70665	CER. FILTER SFE10.7MS3-A	FF11070620
F201	/S	4822 242 70665	CER. FILTER SFE10.7MS3-A	FF11070620
F201	/U	4822 242 70911	CER. FILTER SFF10.7MA8-A	FF11070610
F202		4822 242 70665	CER. FILTER SFE10.7MS3-A	FF11070620
JC05			TERMINAL 2P DIRECT IN	YT02021580
			NI BL/BL CNT.SWF	
JC06			TERMINAL YKC21-3834	YT02021570
			NI W/R S URR.IN L/R	
J101		4822 290 81632	TERMINAL YKD31-0215A	YT03030020
			FM/AM ANT PAL	
LA01		4822 157 63084	MW ANT COIL 280µH	LA10295170
LA02		4822 157 70779	OSC. COIL MW	LO70013010
LA05		4822 157 53589	CHOKE COIL 39MH J	LC23960710
LA06		4822 148 81095	I.F.T. COIL AM IFT K7-H5	LI70033510
			FOR SFP450D	
L201		4822 157 63904	I.F.T. COIL FM DET	LI70376010
			M292BEAS-5968Z	
L301		4822 157 71731	M.P.X. COIL	LS10293020
			LPF-V10-A1 19/38KHz	
L302		4822 157 71731	M.P.X. COIL	LS10293020
			LPF-V10-A1 19/38KHz	
L350				
~	/S	4822 157 62911	CHOKE COIL 3.3µH	LC13323800
L356			LAL02TA3R3J	
L359	/S	4822 157 62911	CHOKE COIL 3.3µH	LC13323800
			LAL02TA3R3J	
L501				
~		4822 157 70813	CHOKE COIL 47µH	LC14733800
L504			LAL02TA470J	
S301	/K	4822 277 21712	SLIDE SWITCH ALPS SSSS92	SS02021470
X351	/S	4822 242 10857	CRYSTAL 4.332MHz AT-49	JX04003260
X501		4822 242 72333	CRYSTAL AD0618CTB 7.2MHz	JX07001260
			P604-AC-3 DTS&THX DECODE	
			CIRCUIT BOARD	
			P604-CAPACITORS	
CD01		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
			GRM39F104Z16	
CD02		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
			GRM39F104Z16	
CD03		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
			GRM39F104Z16	
CD05		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD06		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD07		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD09		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD10		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD11		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD13		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CD14		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CD15		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CD17		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD18		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD19		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CD21		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD22		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD23		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CD25		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CD26		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CD27		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CD29		5322 126 11578	CER. CHIP 1000pF ±10% 50V	DK96102300
CD30		5322 126 11578	CER. CHIP 1000pF ±10% 50V	DK96102300
CD31		5322 126 11578	CER. CHIP 1000pF ±10% 50V	DK96102300
CD81				
~		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
CD92				
CD93				
~		9965 000 01318	ELECT. 220µF M 10V RA-2	OA22701020
CD96				
CD97		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CD98		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CH05				
~		4822 121 10792	FILM 220pF ±5% 100V	OF15221540
CH08				
CH12		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
CH14		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CH15				
~		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH18			GRM39F104Z16	
CH24		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
CH26		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CH27		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH28		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH31		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CH32		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CH33		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH34		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH35		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CH36		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CH55				
~		4822 121 10792	FILM 220pF ±5% 100V	OF15221540
CH58				
CH62		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
CH64		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CH65				
~		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH68				
CH74		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
CH76		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CH77		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH78		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH81		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CH82		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CH83		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH84		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CH85		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CH86		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CJ05				
~		4822 121 10792	FILM 220pF ±5% 100V	OF15221540
CJ08				
CJ11		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CJ12		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CJ13				
~		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CJ16				
CJ17		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CJ18		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CJ21		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CJ22		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CJ23		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CJ24		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK01				
∫		4822 124 90352	ELECT. 10µF M 16V RA-2	OA10601620
CK04				
CK05				
∫		4822 126 11696	CER. CHIP 470pF ±5% SL	DD95471370
CK08				
CK11				
∫		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK20				
CK21		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CK22		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CK23		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK24		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CK25		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CK26		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CK27		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK28		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK30		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK31		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK33		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CK34		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
CK35				
∫		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CK40				
CK41		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CK42		4822 124 21894	ELECT. 10µF 16V	EJ10601610
CK43		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CK44		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CK45		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CK46		4822 122 33761	CER. CHIP 22pF ±5% CG50V	DD95220300
CR01		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR02		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR03		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR04		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR05		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR06		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR07		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR08		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR10		4822 126 11568	CER. CHIP 470pF ±10% 50V	DK96471300
CR11		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR12		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR13		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR14		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR15		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR16		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR17		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR18		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR20		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CR21		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CR22		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR23		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR25		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR26		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
CR27		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
CR28		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CR29		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CR30		5322 126 11578	CER. CHIP 1000pF ±10% B 50V	DK96102300
C601		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C602		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C603		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C604		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C605		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C606		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C607		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C608		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C609		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
C610		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C611		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C612		4822 126 11568	CER. CHIP 470pF ±10%	DK96471300
C613		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C614		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C615		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C616		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C617		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C618		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C619		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C620		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C621		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C622		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C623		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C624		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C625		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C651		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C652		4822 126 11703	CER. CHIP 0.01µF +80%-20%	DK98103300
C653		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C654		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C655		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C656		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C657		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C658				
∫		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C662				
C663		4822 126 13396	CER. CHIP 0.047µF ±10%	DK96473200
C664		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C666		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C667		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C668		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C669		4822 126 14417	CER. CHIP 0.01µF ±10% 50V	DK96103300
C670		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C680		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C691		4822 126 14417	CER. CHIP 0.01µF ±10% 50V	DK96103300
C692		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C693		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C694		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
C695		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
C696		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C697		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
			P604-CAPACITORS (COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CH01-CH04 CH13	
			CH25 CH51-CH54 CH63 CH75	
			CJ01-CJ04 CJ09 CJ10	
			CK09 CK10 CR19	
			P604-RESISTORS	
RD01		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RD05		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RD07		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RD81				
∫		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RD86				
RD92		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RD94		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RE69				
∫		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RE72				
RH01				
∫		4822 116 83211	CHIP 1.8kΩ ±5% 1/16W	NN05182610
RH12				
RH13		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH17		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH19		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH21		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RH22		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RH23		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RH24		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RH25		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RH26		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH30		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH32		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH34		4822 051 30152	CHIP 1.5kΩ ±5% 1/16W	NN05152610
RH35		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RH36		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RH37		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RH38		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RH39		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH40		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH41		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RH42		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
RH51				
~		4822 116 83211	CHIP 1.8kΩ ±5% 1/16W	NN05182610
RH62				
RH63		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH67		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH69		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH72		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RH73		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RH74		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RH75		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RH76		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH80		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH82		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RH85		4822 051 30153	CHIP 15kΩ ±5% 1/16W	NN05153610
RH86		4822 116 83208	CHIP 12kΩ ±5% 1/16W	NN05123610
RH87		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RH88		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RH93		4822 051 30392	CHIP 3.9kΩ ±5% 1/16W	NN05392610
RJ01				
~		4822 116 83211	CHIP 1.8kΩ ±5% 1/16W	NN05182610
RJ12				
RJ13				
~		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
RJ16				
RJ17				
~		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RJ20				
RJ21		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RJ22		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RJ23		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RJ24		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RJ91		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RJ92		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RK01		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK02		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK03		4822 116 83208	CHIP 12kΩ ±5% 1/16W	NN05123610
RK04		4822 116 83208	CHIP 12kΩ ±5% 1/16W	NN05123610
RK05		4822 116 83339	CHIP 56Ω ±5% 1/16W	NN05560610
RK06		4822 116 83339	CHIP 56Ω ±5% 1/16W	NN05560610
RK07				
~		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RK18				
RK19				
~		4822 051 30399	CHIP 39Ω ±5% 1/16W	NN05390610
RK22				
RK23		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK24		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RK31		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RK32		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RK34		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
RK35				
~		4822 526 10584	FERRITE CORE	FC90090010
RK37			ZBF503D-00TA	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RR01		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RR02		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RR03		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RR04		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
RR05		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RR06		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RR07		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RR08		4822 051 30339	CHIP 33Ω ±5% 1/16W	NN05330610
RR09		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RR10		4822 051 30391	CHIP 390Ω ±5% 1/16W	NN05391610
RR12		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RR13		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RR14		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RR15		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RR16		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RR17				
~		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RR20				
RR21		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RR22		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RR23		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RR24		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RR25		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RR27		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RR81				
~		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RR84				
R601		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
R602		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R603		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R604		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R605		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R606		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R651		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R652		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R653		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R654		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R655		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R656		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R657		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R659		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R661		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R662		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
R663		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
R683		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
R684		4822 051 30479	CHIP 47Ω ±5% 1/16W	NN05470610
R685		4822 051 30479	CHIP 47Ω ±5% 1/16W	NN05470610
R686		4822 051 30479	CHIP 47Ω ±5% 1/16W	NN05470610
R687		4822 051 30474	CHIP 470kΩ ±5% 1/16W	NN05474610
R689		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R691		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R692		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R694		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R695		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R697		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
R698		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
			P604-SEMICONDUCTORS	
DR01		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
DR02		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
DR03		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
D692		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
D693		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
QD01		9965 000 01319	IC AD1855 DAC 24BIT/96KHz	HC10013840
QD02		9965 000 01319	IC AD1855 DAC 24BIT/96KHz	HC10013840
QD03		9965 000 01319	IC AD1855 DAC 24BIT/96KHz	HC10013840
QH01		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QH02		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QH03		4822 209 91175	IC NJM2114M OP AMP	HC10175090

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QH04		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QH05		4822 130 43818	TRS.2SC2878 A B	HT328782A0
QH06		4822 130 43818	TRS.2SC2878 A B	HT328782A0
QH51		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QH52		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QH53		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QJ01		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QJ02		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QK01		9965 000 01317	IC CS5394 2CH.ADC 24BIT	HC10003880
QK03				
~		4822 209 91175	IC NJM2114M OP AMP	HC10175090
QK06				
QR01		9965 000 01341	IC CS8414 SPDIF RECEIVER	HC10004880
QR02		9965 000 01342	IC TC74HC151AF	HC715100Z0
QR03		9965 000 01342	IC TC74HC151AF	HC715100Z0
QR04		4822 209 30426	IC CMOS 74HC00	HC700000Z0
QR06		4822 209 32879	IC TC74HC157A	HC715705Z0
QR07			IC 74HCU04	HC700400Z0
QR08		4822 209 90909	IC TC7W74FU D-F/F	HC10400050
Q601		9965 000 01321	IC YSS912	HC10014640
			DTS/AC-3 DECODER	
Q602		9965 000 01322	IC TC7WT241FU TAPING	HC007405K0
Q603		9965 000 01323	IC TC7WT126FU TAPING	HC007305K0
Q604		9965 000 01324	IC 1M SRAM 8X128K 15NS SOJ	HC10088000
Q605		9965 000 01326	IC TCW32FU OR *2	HC10419050
Q651			IC ZR38600	HC10051990
			AC-3/THX5.1 DECODER	
Q652		9965 000 01338	IC TC7SET04F	HC007205K0
Q691		9965 000 01339	MICROPROCESSOR	HU300JN50F
			SURR CPU THX 78018FGCAB8	
Q692		9965 000 01323	IC TC7WT126FU	HC007305K0
Q693			IC S-80745AN	HC10048530
Q694		4822 209 12845	IC S-80730SN-DT-X RESET	HC10054530
			P604-MISCELLANEOUS	
JR01		4822 265 10683	TERMINAL RCA 2P NI BL	YT02021400
JR02		4822 218 11487	OPTICAL RECIVER GP1F32R	YJ15000150
JR03		4822 218 11487	OPTICAL RECIVER GP1F32R	YJ15000150
JR04		4822 267 31369	OPTICAL OUTPUT GP1F32T	YJ15000090
JR05		4822 265 10328	TERMINAL 14X14 RA 1L1P BLK	YT02010780
LD01				
~		4822 526 10584	FERRITE CORE	FC90090010
LD03			ZBF503D-00TA	
LD05				
~		4822 526 10584	FERRITE CORE	FC90090010
LD07			ZBF503D-00TA	
LD81				
~		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
LD86				
LH01		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LH02		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LH51		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LH52		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LJ01		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LJ02		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LK01		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LR01		4822 142 60422	PULSE TRNSF.	TP41042030
			TPS247MN-0386AN	
LR02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L601		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L602		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L651		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
L691				
~		4822 157 10884	EMI FILTER BLM11A221S	FN31000010
L696				
L697		4822 157 10884	EMI FILTER BLM11A221S	FN31000010
X601		4822 242 10851	CRYSTAL 12.288MHz AT-49	JX12013260
X691			CER. VIB. CST10.0MTW-TF01	FQ01005010
			10.0MHz	
			P704-3CH POWER-AMP.	
			CIRCUIT BOARD	
			P704-CAPACITORS	
CT01		4822 124 22275	ELECT. 47µF 10V	OA47601020
CT03			FILM 470pF ±5% 100V APSV	OF15471540
CT05		4822 121 70437	FILM 1000pF ±5% 100V APSV	OF15102540
CT07		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CT11			ELECT. 220µF M 100V RA2	OA22710020
CT13			ELECT. 220µF M 100V RA2	OA22710020
CT15		4822 124 11533	ELECT. 1µF M 100V RA2	OA10510020
CT17		9965 000 01586	MICA 22pF ±5% 500V FE	DF35220520
CT19			ELECT. 4.7µF M 100V	EA47510010
CT27		9965 000 00438	FILM 120pF ±5% 100V APSV	OF15121540
CT29		9965 000 00438	FILM 120pF ±5% 100V APSV	OF15121540
C701		4822 124 22275	ELECT. 47µF 10V	OA47601020
C702		4822 124 22275	ELECT. 47µF 10V	OA47601020
C703			FILM 470pF ±5% 100V APSV	OF15471540
C704			FILM 470pF ±5% 100V APSV	OF15471540
C705		4822 121 70437	FILM 1000pF ±5% 100V APSV	OF15102540
C706		4822 121 70437	FILM 1000pF ±5% 100V APSV	OF15102540
C707		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
C708		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
C711				
~			ELECT. 220µF M 100V RA2	OA22710020
C714				
C715		4822 124 11533	ELECT. 1µF M 100V RA2	OA10510020
C716		4822 124 11533	ELECT. 1µF M 100V RA2	OA10510020
C717		9965 000 01586	MICA 22pF ±5% 500V FE	DF35220520
C718		9965 000 01586	MICA 22pF ±5% 500V FE	DF35220520
C719			ELECT. 4.7µF M 100V RE3	EA47510010
C720			ELECT. 4.7µF M 100V	EA47510010
C727				
~		9965 000 00438	FILM 120pF ±5% 100V APSV	OF15121540
C730				
			P704-CAPACITORS (COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V :	
			C721-C726 CT21 CT23 CT25	
			P704-RESISTORS	
⚠ RT07			1.5kΩ ±5% 1/6W	GG05152160
⚠ RT09			1.5kΩ ±5% 1/6W	GG05152160
RT15		4822 100 11471	TRIM. 100kΩ RH0638CJ4R	RA01040780
⚠ RT25		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ RT27		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ RT29		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ RT31		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ RT33		4822 052 10569	56Ω ±5% 1/6W	GG05560160
⚠ RT35		4822 052 10569	56Ω ±5% 1/6W	GG05560160
RT43		4822 100 20681	TRIM. 2.2kΩ RH0638CJ3R	RA02220780
⚠ RT49		4822 052 10479	47Ω ±5% 1/4W	GG05470140
⚠ RT51		4822 052 10479	47Ω ±5% 1/4W	GG05470140
⚠ RT53		4822 052 10101	100Ω ±5% 1/6W	GG05101160
⚠ RT55		4822 052 10101	100Ω ±5% 1/6W	GG05101160
RT57			JUMPER	75060501P0
RT59			JUMPER	75060501P0
⚠ RT61		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RT63		4822 052 10229	22Ω ±5% 1/6W	GG05220160
⚠ RT65		4822 052 10229	22Ω ±5% 1/6W	GG05220160
⚠ RT67		4822 116 60319	FUSIBLE 220Ω ±5% 1/2W	NH05221120
RT69		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RT71		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
⚠ RT73		4822 113 80612	0.18Ω K 5WX2PCS. RGC55	BZ10182020
⚠ RT75		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RT77		4822 050 22202	2.2kΩ ±5% 1/6W	GG05222160
⚠ RT83		4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ RT85		4822 053 10109	10Ω 1W	GA05100010
⚠ R707				
∫			1.5kΩ ±5% 1/6W	GG05152160
⚠ R710				
R715		4822 100 11471	TRIM. 100kΩ RH0638CJ4R	RA01040780
R716		4822 100 11471	TRIM. 100kΩ RH0638CJ4R	RA01040780
⚠ R725				
∫		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ R732				
⚠ R733				
∫		4822 052 10569	56Ω ±5% 1/6W	GG05560160
⚠ R736				
R743		4822 100 20681	TRIM. 2.2kΩ RH0638CJ3R	RA02220780
R744		4822 100 20681	TRIM. 2.2kΩ RH0638CJ3R	RA02220780
⚠ R749				
∫		4822 052 10479	47Ω ±5% 1/4W	GG05470140
⚠ R752				
⚠ R753				
∫		4822 052 10101	100Ω ±5% 1/6W	GG05101160
⚠ R756				
R757				
∫			JUMPER	75060501P0
R760				
⚠ R761		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ R762		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ R763				
∫		4822 052 10229	22Ω ±5% 1/6W	GG05220160
⚠ R766				
⚠ R767		4822 116 60319	FUSIBLE 220Ω ±5% 1/2W	NH05221120
⚠ R768		4822 116 60319	FUSIBLE 220Ω ±5% 1/2W	NH05221120
R769				
∫		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
R772				
⚠ R773		4822 113 80612	0.18Ω K 5WX2PCS. RGC55	BZ10182020
⚠ R774		4822 113 80612	0.18Ω K 5WX2PCS. RGC55	BZ10182020
⚠ R775		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ R776		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ R777		4822 050 22202	2.2kΩ ±5% 1/6W	GG05222160
⚠ R778		4822 050 22202	2.2kΩ ±5% 1/6W	GG05222160
⚠ R783		4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ R784		4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ R785		4822 053 10109	10Ω 1W	GA05100010
⚠ R786		4822 053 10109	10Ω 1W	GA05100010
			P704-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R701-R706	
			R711-R714 R717-R724	
			R737-R742 R745-R748	
			R779-R782 R787-R790 RT01	
			RT03 RT05 RT11 RT13 RT17	
			RT19 RT21 RT23 RT37 RT39	
			RT41 RT45 RT47 RT79 RT81	
			RT87 RT89	
			P704-SEMICONDUCTORS	
DT01		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DT03		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DT05			JUMPER	75060501P0
DT07			JUMPER	75060501P0
DT09			JUMPER	75060501P0
DT11			JUMPER	75060501P0
DT13		4822 130 80837	DIODE HSS81	HD20027010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
DT15		4822 130 80837	DIODE HSS81	HD20027010
DT17		4822 130 80317	ZENER DIODE NTJ5.1B 5.1V	HD30511000
DT19		4822 130 80317	ZENER DIODE NTJ5.1B 5.1V	HD30511000
DT21		4822 130 80837	DIODE HSS81	HD20027010
D701				
∫		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
D704			30V 0.1A	
D705				
∫			JUMPER	75060501P0
D712				
D713				
∫		4822 130 80837	DIODE HSS81	HD20027010
D716				
D717				
∫		4822 130 80317	ZENER DIODE NTJ5.1B 5.1V	HD30511000
D720				
D721		4822 130 80837	DIODE HSS81	HD20027010
D722		4822 130 80837	DIODE HSS81	HD20027010
⚠ K761				
∫			TRS.KIT 2SA1360 2SC3423	HK136019C0
⚠ K763			PAIR O OR Y	
⚠ K766				
∫			TRS.KIT 2SA1837 2SC4793	HK183719C0
⚠ K768			HFE MJI RANK	
⚠ K771				
∫			TRS.KIT 2SA1943 2SC5200	HK194319C0
⚠ K773			R OR O PAIR	
QT01		4822 130 42949	TRS.2SA970	HT109702A0
QT03		4822 130 42949	TRS.2SA970	HT109702A0
QT05		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
QT07		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
QT09		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
⚠ QT11		5322 130 61728	TRS.2SA1360 O OR Y	HT113602A0
⚠ QT13		5322 130 61737	TRS.2SC3423 O OR Y	HT334232A0
QT17		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
QT19		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
⚠ QT21		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
⚠ QT23		4822 130 63634	TRS.2SA1837 O OR Y	HT118372A0
QT29		4822 130 43233	TRS.2SC2240	HT322402A0
Q701		4822 130 42949	TRS.2SA970	HT109702A0
Q702		4822 130 42949	TRS.2SA970	HT109702A0
Q703		4822 130 42949	TRS.2SA970	HT109702A0
Q704		4822 130 42949	TRS.2SA970	HT109702A0
Q705		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
Q706		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
Q707		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
Q708		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
Q709		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
Q710		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
⚠ Q711		5322 130 61728	TRS.2SA1360 O OR Y	HT113602A0
⚠ Q712		5322 130 61728	TRS.2SA1360 O OR Y	HT113602A0
⚠ Q713		5322 130 61737	TRS.2SC3423 O OR Y	HT334232A0
⚠ Q714		5322 130 61737	TRS.2SC3423 O OR Y	HT334232A0
Q717		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
Q718		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
Q719		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
Q720		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
⚠ Q721		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
⚠ Q722		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
⚠ Q723		4822 130 63634	TRS.2SA1837 O OR Y	HT118372A0
⚠ Q724		4822 130 63634	TRS.2SA1837 O OR Y	HT118372A0
Q729		4822 130 43233	TRS.2SC2240	HT322402A0
Q730		4822 130 43233	TRS.2SC2240	HT322402A0
			P704-SEMICONDUCTORS	
LT01		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
L701		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
L702		4822 157 70022	AIR COIL SPK CHOCK	ML08010030

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
⚠ S701		9965 000 01765	CIRCUIT BREAKER TEMP-SW	FR31200020
			120DEG. OHD3-120B	
⚠ S702		9965 000 01765	CIRCUIT BREAKER TEMP-SW	FR31200020
			120DEG. OHD3-120B	
			P754-2CH POWER-AMP.	
			CIRCUIT BOARD	
			P754-CAPACITORS	
CN01		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CN02		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CN03		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CN04		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CN05		4822 124 90354	ELECT. 100µF 16V	OA10701620
CN06		4822 124 90354	ELECT. 100µF 16V	OA10701620
CN07		4822 124 41543	ELECT. 1µF 50V	OA10505020
CN08		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CN09		4822 124 90353	ELECT. 100µF 10V	OA10701020
CN10		4822 124 90362	ELECT. 22µF 50V	OA22605020
CN11		4822 124 22571	ELECT. 10µF 50V	OA10605020
CN12		4822 124 41539	ELECT. 47µF 16V	OA47601620
CN13		4822 124 90354	ELECT. 100µF 16V	OA10701620
CN14		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CN15		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CN16		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CN17			ELECT. 47µF M 16V BI-POLE	EQ47601630
CP01		4822 124 22275	ELECT. 47µF 10V	OA47601020
CP02		4822 124 22275	ELECT. 47µF 10V	OA47601020
CP03			FILM 470pF ±5% 100V APSV	OF15471540
CP04			FILM 470pF ±5% 100V APSV	OF15471540
CP05		4822 121 70437	FILM 1000pF ±5% 100V APSV	OF15102540
CP06		4822 121 70437	FILM 1000pF ±5% 100V APSV	OF15102540
CP07		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CP08		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CP11				
∫			ELECT. 220µF M 100V RA-2	OA22710020
CP14				
CP15		4822 124 11533	ELECT. 1µF M 100V RA2	OA10510020
CP16		4822 124 11533	ELECT. 1µF M 100V RA2	OA10510020
CP17		9965 000 01586	MICA 22pF ±5% 500V FE	DF35220520
CP18		9965 000 01586	MICA 22pF ±5% 500V FE	DF35220520
CP19			ELECT. 4.7µF M 100V	EA47510010
CP20			ELECT. 4.7µF M 100V	EA47510010
CP27				
∫		9965 000 00438	FILM 120pF ±5% 100V APSV	OF15121540
CP30				
C861		4822 124 90354	ELECT. 100µF 16V	OA10701620
C862		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C871		4822 124 90354	ELECT. 100µF 16V	OA10701620
C872		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C881		4822 124 90354	ELECT. 100µF 16V	OA10701620
C882		4822 126 10935	ELECT. 100µF M 6.3V	EJ10700610
			P754-CAPACITORS (COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CP21-CP26	
			P754-RESISTORS	
⚠ RN04		4822 050 21503	15kΩ ±5% 1/2W	GG05153120
⚠ RN08		4822 050 23303	33kΩ ±5% 1/4W	GG05333140
⚠ RN16		4822 052 10109	10Ω ±5% 1/6W	GG05100160
⚠ RN44		4822 053 10221	220Ω ±5% 1W	GA05221010
⚠ RN45		4822 053 10331	330Ω ±5% 1W	GA05331010
⚠ RN46		4822 053 10331	330Ω ±5% 1W	GA05331010
⚠ RP07				
∫			1.5kΩ ±5% 1/6W	GG05152160
⚠ RP10				
RP15		9965 000 01766	TRIM. VARIABLE 100K	RA01040760
RP16		9965 000 01766	TRIM. VARIABLE 100K	RA01040760

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
⚠ RP25				
∫		4822 052 10561	560Ω ±5% 1/6W	GG05561160
⚠ RP32				
⚠ RP33				
∫		4822 052 10569	56Ω ±5% 1/6W	GG05560160
⚠ RP36				
RP43		9965 000 01566	TRIM. VARIABLE 2.2kΩ VERT	RA02220760
RP44		9965 000 01566	TRIM. VARIABLE 2.2kΩ VERT	RA02220760
⚠ RP49				
∫		4822 052 10479	47Ω ±5% 1/4W	GG05470140
⚠ RP52				
⚠ RP53				
∫		4822 052 10101	100Ω ±5% 1/6W	GG05101160
⚠ RP56				
RP57				
∫			JUMPER	75060501P0
RP60				
⚠ RP61		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RP62		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RP63				
∫		4822 052 10229	22Ω ±5% 1/6W	GG05220160
⚠ RP66				
⚠ RP67		4822 116 60319	FUSIBLE 220Ω ±5% 1/2W	NH05221120
⚠ RP68		4822 116 60319	FUSIBLE 220Ω ±5% 1/2W	NH05221120
RP69				
∫		4822 052 10478	4.7Ω ±5% 1/6W	GG05047160
RP72				
⚠ RP73		4822 113 80612	0.18Ω K 5WX2PCS. RGC55	BZ10182020
⚠ RP74		4822 113 80612	0.18Ω K 5WX2PCS. RGC55	BZ10182020
⚠ RP75		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RP76		4822 052 10102	1kΩ ±5% 1/6W	GG05102160
⚠ RP77		4822 050 22202	2.2kΩ ±5% 1/6W	GG05222160
⚠ RP78		4822 050 22202	2.2kΩ ±5% 1/6W	GG05222160
⚠ RP83		4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ RP84		4822 116 83929	220Ω ±5% 1/4W	GG05221140
⚠ RP85		4822 053 10109	10Ω ±5% 1W	GA05100010
⚠ RP86		4822 053 10109	10Ω ±5% 1W	GA05100010
⚠ R881		4822 050 21021	100Ω ±5% 1/4W	GG05101140
			P754-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RN01-RN03	
			RN05-RN07 RN09-RN15	
			RN17-RN43 RN48 RN49	
			RP01-RP06 RP11-RP14	
			RP17-RP24 RP37-RP42	
			RP45-RP48 RP79-RP82	
			RP89 RP90	
			P754-SEMICONDUCTORS	
DN01		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DN02		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DN03		4822 130 82421	DIODE 1D3	HD20002710
DN04		4822 130 82421	DIODE 1D3	HD20002710
DN05				
∫		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
DN07			30V 0.1A	
DN09		4822 130 43564	VARISTOR	HP00004230
			PTH9M04BE222TS2F333	
DN10		4822 130 80837	DIODE HSS81	HD20027010
DP01				
∫		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
DP04			30V 0.1A	
DP05				
∫			JUMPER	75060501P0
DP12				

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
DP13				
∫		4822 130 80837	DIODE HSS81	HD20027010
DP16				
DP17				
∫		4822 130 80317	ZENER DIODE NTJ5.1B 5.1V	HD30511000
DP20				
DP21		4822 130 80837	DIODE HSS81	HD20027010
DP22		4822 130 80837	DIODE HSS81	HD20027010
D861		4822 130 82421	DIODE 1D3	HD20002710
D871		4822 130 82421	DIODE 1D3	HD20002710
D881		4822 130 82421	DIODE 1D3	HD20002710
D882		4822 130 80132	ZENER DIODE NTJ3.9A 3.9V	HD30391000
⚠ K764			TRS.KIT 2SA1360 2SC3423	HK136019C0
			PAIR O OR Y	
⚠ K765			TRS.KIT 2SA1360 2SC3423	HK136019C0
			PAIR O OR Y	
⚠ K769			TRS.KIT 2SA1837 2SC4793	HK183719C0
			HFE MJI RANK	
⚠ K770			TRS.KIT 2SA1837 2SC4793	HK183719C0
			HFE MJI RANK	
⚠ K774			TRS.KIT 2SA1943 2SC5200	HK194319C0
			R OR O PAIR	
⚠ K775			TRS.KIT 2SA1943 2SC5200	HK194319C0
			R OR O PAIR	
QN01		4822 209 83312	IC TA7317P	HC10042050
QN02		4822 130 42594	DIG.TRS.DTC144ES	BA20002000
QN03		4822 130 42949	TRS.TRANSIATOR 2SA970	HT109702A0
QN04		4822 130 60526	TRS.2SD1508 HFE>4000	HT415080A0
QN05		4822 130 42594	DIG.TRS.DTC144ES	BA20002000
QN06		4822 130 60696	TRS.2SC1627 O OR Y	HT316272B0
⚠ QN07			IC PQ30RV11	HC36930320
QN08		4822 130 41947	TRS.2SC536SP ETC	HT30001000
QN09		4822 130 41947	TRS.2SC536SP ETC	HT30001000
QN10		4822 130 41947	TRS.2SC536SP ETC	HT30001000
QN11		4822 130 43233	TRS.2SC2240	HT322402A0
QN12		4822 130 43233	TRS.2SC2240	HT322402A0
QN13		4822 130 41947	TRS.2SC536SP ETC	HT30001000
QN14		4822 130 42715	TRS.2SA608SP ETC	HT10001000
QP01				
∫		4822 130 42949	TRS.2SA970	HT109702A0
QP04				
QP05		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
QP06		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
QP07				
∫		4822 130 43283	TRS.2SC2705 O OR Y	HT327052A0
QP10				
⚠ QP11				
∫		5322 130 61737	TRS.2SC3423 O OR Y	HT334232A0
⚠ QP14				
QP15		4822 130 60117	TRS.2S2SC3419 Y	HT334191Y0
QP16		4822 130 60117	TRS.2S2SC3419 Y	HT334191Y0
QP17				
∫		4822 130 42999	TRS.2SA1145 O OR Y	HT111452A0
QP20				
⚠ QP21		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
⚠ QP22		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
⚠ QP23		4822 130 63634	TRS.2SA1837 O OR Y	HT118372A0
⚠ QP24		4822 130 63634	TRS.2SA1837 O OR Y	HT118372A0
⚠ QP25			TRS.2SC5200 R OR O	HT352002A0
			230V 15A 150W	
⚠ QP26			TRS.2SC5200 R OR O	HT352002A0
			230V 15A 150W	
⚠ QP27			TRS.2SA1943 R OR O	HT119432A0
			230V 15A 150W	
⚠ QP28			TRS.2SA1943 R OR O	HT119432A0
			230V 15A 150W	
QP29		4822 130 43233	TRS.2SC2240	HT322402A0
QP30		4822 130 43233	TRS.2SC2240	HT322402A0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
⚠ Q861		4822 209 31631	IC NJM7805FA +5V	HC38905090
⚠ Q871		4822 209 31631	IC NJM7805FA +5V	HC38905090
⚠ Q881		4822 130 63635	TRS.2SC4793 O OR Y	HT347932A0
			P754-MISCELLANEOUS	
LN01		9965 000 01343	RELAY MR62-12SR	LY20120510
LP01		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
LP02		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
⚠ MN51		9965 000 01770	D.C MOTOR FBA08A12H0	MM01200320
			DC FAN 12V	
⚠ ZN51		9965 000 01772	DC FAN MOTOR UNIT	ZK300J0020
			W/3P WIRE	
			P774-PO-AMP.TR-BLOCK	
			CIRCUIT BOARD 3CH	
			P774-SEMICONDUCTORS	
D799		4822 130 43564	VARISTOR	HP00004230
			PTH9M04BE222TS2F333	
QT15		4822 130 60117	TRS.2S2SC3419 Y	HT334191Y0
⚠ QT25			TRS.2SC5200 R OR O	HT352002A0
			230V 15A 150W	
⚠ QT27			TRS.2SA1943 R OR O	HT119432A0
			230V 15A 150W	
Q715		4822 130 60117	TRS.2S2SC3419 Y	HT334191Y0
Q716		4822 130 60117	TRS.2S2SC3419 Y	HT334191Y0
⚠ Q725			TRS.2SC5200 R OR O	HT352002A0
			230V 15A 150W	
⚠ Q726			TRS.2SC5200 R OR O	HT352002A0
			230V 15A 150W	
⚠ Q727			TRS.2SA1943 R OR O	HT119432A0
			230V 15A 150W	
⚠ Q728			TRS.2SA1943 R OR O	HT119432A0
			230V 15A 150W	
			P804-POWER S UPPLY ±15V	
			CIRCUIT BOARD	
			P804-CAPACITORS	
C801		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C802		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C803		4822 124 81133	ELECT. 4700µF 25V	OA47802520
C804		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C805		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C806		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C807		4822 124 81133	ELECT. 4700µF 25V	OA47802520
C808		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C817		4822 124 22571	ELECT. 10µF M 50V	OA10605020
C818		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
			P804-RESISTORS	
R801			JUMPER	75060501P0
R802			JUMPER	75060501P0
R813			100Ω ±5% 1/6W	GD05101160
			P804-SEMICONDUCTORS	
⚠ D801		4822 130 83067	DIODE D3SB 20	HE20020290
			V=200V IO=3.0A	
D802		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D807		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
⚠ Q801		4822 209 60826	IC NJM7812FA +12V 1A	HC38912090
⚠ Q806			TRS.2SD1415	HT41415100
			P804-MISCELLANEOUS	
⚠ F801	/K,/S	4822 117 10158	1Ω ±5% 1/4W	GG05010140
⚠ F801	/U		FUSE T2A 250V TR5 NO.19374	FS20200210
⚠ F802	/K,/S	4822 117 10158	1Ω ±5% 1/4W	GG05010140
⚠ F802	/U		FUSE T2A 250V TR5 NO 19374	FS20200210

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			P854-MAIN+B	
			CIRCUIT BOARD	
			P8504-CAPACITORS	
C851		4822 126 12453	CER. 0.01µF +80%-20% 500V	DK18103560
C852		4822 126 12453	CER. 0.01µF +80%-20% 500V	DK18103560
⚠ C853			ELECT. 36000µF 71V x 2	EI36907110
C854		4822 126 12453	CER. 0.01µF +80%-20% 500V	DK18103560
C857		4822 124 90357	ELECT. 2.2µF M 50V RA-2	OA22505020
			P854-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R851-R854	
			P854-SEMICONDUCTORS	
⚠ D851		9965 000 01578	DIODE D25XB60 BRIDGE	HE20029290
D853		4822 130 82421	DIODE 1D3	HD20002710
D854		4822 130 82421	DIODE 1D3	HD20002710
			PB04-PRIMARY	
			CIRCUIT BOARD [U]	
			PB04-CAPACITORS	
CB01	/U	4822 122 33276	CER. 0.01µF ±20% 50V	DK17103840
CB03	/U	4822 111 91269	JUMPER	75061001P0
			PB04-RESISTORS	
RB01	/U		2.2MΩ ±10% 1/2W FOR UL	RC10225820
			PB04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RB03 RB04	
			PB04-SEMICONDUCTORS	
DB01	/U	4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PB04-MISCELLANEOUS	
⚠ FB01	/U		FUSE 8A 125V SM8 UL CSA	FS10800540
⚠ FB02	/U		FUSE 630mA 250V	FS10063360
			UL CSA FBM	
JB03	/U		JACK 2P AC OUTLET	YJ04002040
LB02	/U	4822 280 80773	RELAY VS24MB-NR	LY10240240
			TV-8 SEMKO LISTED	
			PB54-PRIMARY	
			CIRCUIT BOARD [/K, /S]	
			PB54-CAPACITOR	
CB51	/K,/S	4822 122 33276	CER. 0.01µF ±20% 50V	DK17103840
			PB54-SEMICONDUCTOR	
DB51	/K,/S	4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PB54-MISCELLANEOUS	
⚠ FB51	/K,/S	4822 253 30387	FUSE T4A 250V BS LISTED	FS10400850
⚠ FB52	/K,/S	4822 070 32001	FUSE T200mA 250V	FS10020850
			BS LISTED	
LB52	/K,/S	4822 280 80773	RELAY VS24MB-NR	LY10240240
			TV-8 SEMKO LISTED	
			PB74-POWER SW	
			CIRCUIT BOARD	
CB71		4822 122 33276	CER. 0.01µF ±20% 50V	DK17103840
⚠ SB71		9965 000 01777	PUSH SWITCH SDDLB1	SP01012460
			POWER TV-5	
			PL04-CVBS VIDEO SELECTOR	
			CIRCUIT BOARD	
			PL04-CAPACITORS	
CL01		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL02		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL03		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL04			JUMPER	75060501P0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CL05 ∫ CL09		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL10			JUMPER	75060501P0
CL11 ∫ CL23		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL24		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CL25 ∫ CL31		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL32		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CL33		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CL34		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL35		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CL36		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL37		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CL38		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL39		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL40		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL41		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CL42		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL43		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CL44		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CL46	/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CL47	/K,/S	4822 126 11553	CER. 15pF ±5%	DA15150120
CL48	/U	4822 122 33792	CER. 10pF ±5%	DA15100120
CL49		4822 126 11591	CER. 24pF ±5% CH 50V BLK	DD15240300
CL50		4822 126 10362	CER. 22pF ±5%	DA15220110
CL52		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CL53		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CL54		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CL55		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CL56		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL57		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL58		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL59		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CL60		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL61		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CL62		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL63		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL64		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CL65		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CL66			JUMPER	75060501P0
CL67	/U	4822 126 10362	CER. 22pF ±5%	DA15220110
CL68		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CL69		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL70		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL71 ∫ CL74			JUMPER	75060501P0
CL75		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL79		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CL80		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CL81		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL82		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL83		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL84		4822 125 50384	TRIM. VCT51E 20pF	CT12000200
CL86		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX84		4822 124 22277	ELECT. 470µF M 16V	OA47701620
			PL04-CAPACITORS (COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER. CAPACITOR ±10% 50V :	
			CL51 CL76 CL77	
			CL87-CL97[/S]	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CL78	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PL04-RESISTORS	
RL01		4822 111 41355	75Ω ±5% 1/6W	GD05750160
RL03		4822 111 41355	75Ω ±5% 1/6W	GD05750160
RL05		4822 111 41355	75Ω ±5% 1/6W	GD05750160
RL07		4822 111 41355	75Ω ±5% 1/6W	GD05750160
RL09		4822 111 41355	75Ω ±5% 1/6W	GD05750160
⚠ RV51		4822 050 21021	100Ω ±5% 1/2W	GG05101120
			PL04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RL02 RL04 RL06	
			RL08 RL10-RL15 RL18-RL26	
			RL28-RL43 RV52 RV53	
			PL04-SEMICONDUCTORS	
DL07		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DV01		4822 130 82421	DIODE 1D3	HD20002710
DV02		4822 130 82421	DIODE 1D3	HD20002710
DV03		4822 130 82421	DIODE 1D3	HD20002710
DV51		4822 130 82421	DIODE 1D3	HD20002710
DV52		4822 130 82421	DIODE 1D3	HD20002710
DV53		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
QL01		9965 000 01371	IC MM1140XF	HC10083550
QL02			IC BA7612N	HC10201210
QL03		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QL04			IC BA7613N	HC10202210
QL05		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QL06			IC BA7613N	HC10202210
QL07		4822 209 16846	IC NJU3718L	HC10171090
QL08			IC NJM2244	HC10119090
			3IN SW 75Ω DRIVER	
QL09			IC LC74781 OSD	HC10377030
QL10	/K	4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QL10	/S	4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QL11	/K	4822 130 61189	DIG.TRS.	BA20004000
			DTC114TS UN4215 10K	
QL11	/S	4822 130 61189	DIG.TRS.	BA20004000
			DTC114TS UN4215 10K	
QL12	/K	4822 130 61189	DIG.TRS.	BA20004000
			DTC114TS UN4215 10K	
QL12	/S	4822 130 61189	DIG.TRS.	BA20004000
			DTC114TS UN4215 10K	
QL14			IC NJM2244	HC10119090
			3IN SW 75Ω DRIVER	
QL15		4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QL16		4822 130 41947	TRS.2SC2458 2SC1740S	HT30001000
			2SC3199 ETC.	
QL17		4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QL18			IC TC74HC132AP	HC713205D0
QL19		4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QV51		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QV52		4822 130 63634	TRS.2SA1837 Q OR Y	HT118372A0
			PL04-MISCELLANEOUS	
JL01		4822 265 41264	TERMINAL YKC21-3111	YT02030370
JL02		4822 265 41264	TERMINAL YKC21-3111	YT02030370
JL03		4822 265 41264	TERMINAL YKC21-3111	YT02030370
JL04		4822 267 31451	TERMINAL 8P CINCH	YT02080110
			YKC21-3052	
JL05			TERMINAL 14X14 RA 2L2P	YT02021230
			BLK NI FLM-GND	
JL06		4822 265 10328	TERMINAL 14X14 RA 1L1P	YT02010780
			BLK NI FLM-GND	
LL01		4822 157 62922	CHOKE COIL 33µH J	LC13333800

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
LL02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
LL03			JUMPER	75060501P0
~			JUMPER	75060501P0
LL08			JUMPER	75060501P0
LV01		9965 000 01576	RELAY MR82-24USR	LY20240480
LV02		9965 000 01576	RELAY MR82-24USR	LY20240480
LV03		9965 000 01576	RELAY MR82-24USR	LY20240480
XL01	/K	4822 242 73903	CRYSTAL AT49 17.7MHz	JX17001260
XL01	/S	4822 242 73903	CRYSTAL AT49 17.7MHz	JX17001260
XL02		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260
			PL74-AUX INPUT	
			CIRCUIT BOARD	
			PL74-CAPACITORS	
CL75	/S	4822 126 11568	CER. CHIP 470pF	DK96471300
CL76	/S	4822 126 11568	CER. CHIP 470pF	DK96471300
CL77	/S	4822 122 33777	CER. CHIP 47pF	DD95470300
CL78	/S	4822 122 33777	CER. CHIP 47pF	DD95470300
CL79				
~		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CL82				
CL83		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CL84		4822 111 41305	0Ω	GD05000140
CL88		4822 111 41305	0Ω	GD05000140
CL89		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CL90		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CL91		4822 111 41305	0Ω	GD05000140
~		4822 111 41305	0Ω	GD05000140
CL98		4822 111 41305	0Ω	GD05000140
			PL74-RESISTORS	
RL75		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RL76		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RL77		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RL78		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RL79				
~		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RL82				
RL83		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RL84		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RL85		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RL86		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
RL88		4822 051 30759	CHIP 75Ω ±5% 1/16W	NN05750610
			PL74-SEMICONDUCTORS	
QL75		4822 209 71451	IC NJM4558M Y	HC10011090
			PL74-MISCELLANEOUS	
JL75		9965 000 01347	TERMINAL RCA JACK 3P +	BY04040030
			S-TERMINAL AUX	
			PS04-A-FUNC/PRE S UPPLY	
			CIRCUIT BOARD	
CG01				
~		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CG06				
CG09		4822 124 22277	ELECT. 470µF M 16V	OA47701620
CQ01			JUMPER	75060501P0
CQ02			JUMPER	75060501P0
CQ03			JUMPER	75060501P0
CQ08		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CQ09	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CQ10	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CQ15	/K	4822 122 40586	CER. 10000pF ±20%	DA17103110
CS01				
~		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS14				
CS15		4822 124 22571	ELECT. 10µF M 16V RA-2	OA10605020
CS16		4822 124 22571	ELECT. 10µF M 16V RA-2	OA10605020
CS17		4822 124 90358	ELECT. 22µF M 16V RA-2	OA22601620

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CS18				
~		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS21				
CS22		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS23		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS24		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS25				
~		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS28				
CS29		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS30		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS31		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS32		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS33		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS34		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS35		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS36		4822 124 41539	ELECT. 47µF M 16V RA-2	OA47601620
CS55	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS56	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS57		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS58		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS59	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS60	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS61	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS62	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS63		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS64		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS65				
~	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS70				
CS73				
~	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS76				
CS79	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS80	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS81			JUMPER	75060501P0
CS82			JUMPER	75060501P0
CS83			JUMPER	75060501P0
CS84		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CS85		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CS86		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS87		4822 124 90354	ELECT. 100µF M 16V RA-2	OA10701620
CS88		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
CS89		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS90		4822 124 22274	ELECT. 4.7µF M 50V RA-2	OA47505020
CS93	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS94	/S	4822 122 31205	CER. 47pF ±5% CH 50V BLK	DD15470300
CS97		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS98		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CS99		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
C809		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C810		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C811		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C812		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C813		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C814		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C815		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C816		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C819		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C820		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C821		9965 000 01351	ELECT. 13000µF M 16V RE3	EA13901670
C827		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C828		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C830		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C832		9965 000 01352	ELECT. 470µF 63V	EA47706310
C833		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C834			ELECT. 47µF M 35V RA-2	OA47603520
C835		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C840		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
C841		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C843		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020
C844		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C847		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C848		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
C851		4822 124 41538	ELECT. 220µF 35V	OA22703520
C852		4822 124 90357	ELECT. 2.2µF 50V	OA22505020
			PS04-CAPACITORS (COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER. CAPACITOR ±10% 50V :	
			CG07[/S] CG08[/S] CQ06 CQ07	
			CS37-CS54[/S] CS71[/S]	
			CS72[/S] CS91[/S] CS92[/S]	
			CS95[/S] CS96[/S]	
C***			ELECTROLYTIC CAPACITOR	
			±20% : C842 C849	
			PS04-RESISTORS	
⚠ RG15		4822 115 90166	FUSE 10Ω ±2% 1/4W	NF02100140
RS96			JUMPER	75060501P0
RS97			JUMPER	75060501P0
⚠ R804		4822 117 10158	1Ω ±5% 1/4W	GG05010140
⚠ R807		4822 053 10102	1kΩ ±5% 1W	GA05102010
⚠ R811		4822 111 90731	FUSE 47Ω ±2% 1/4W	NF02470140
⚠ R817		4822 115 90167	FUSE 100Ω ±2% 1/4W	NF02101140
R818			JUMPER	75060501P0
			PS04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R806 R808-R810	
			R812 R814-R816 R819	
			RG01-RG06 RG09-RG14	
			RG16-RG20 RQ25-RQ30	
			RS01-RS95 RS98 RS99	
			PS04-SEMICONDUCTORS	
DG01		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DG02		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DG03		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DS01		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DS02		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
D803				
~		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D806				
⚠ D808		4822 130 83438	DIODE D5SB-20 5A 200V	HE20016290
D811		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D812		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D813		4822 130 81729	ZENER DIODE MTZJ33D	HD33301000
D814		4822 130 80273	ZENER DIODE 8.2V	HD30821000
D815				
~		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D825				
⚠ D826			DIODE 1GWJ43	HD20031050
D827			JUMPER	75060501P0
D828		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D829		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D830		4822 130 32362	DIODE 1S133	HD20002000
QG01		9965 000 01359	IC TC9459N ELE.VOL	HC10443050
QG02		4822 209 83631	IC NJM4558D-D	HC10008090
QG03		4822 130 63634	TRS.2SA1837 Q OR Y	HT118372A0
QG04		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QG05		4822 130 43818	TRS.2SC2878 A OR BRANK	HT328782A0
QG06		4822 130 43818	TRS.2SC2878 A OR BRANK	HT328782A0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QG07		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QS01				
~		4822 209 83631	IC NJM4558D-D	HC10008090
QS11				
QS12		4822 209 32552	IC LC78211	HC10308030
QS13		4822 209 32553	IC LC78212	HC10309030
QS14		4822 209 32553	IC LC78212	HC10309030
QS15		4822 209 32552	IC LC78211	HC10308030
QS16		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QS17				
~		4822 130 43818	TRS.2SC2878 A OR BRANK	HT328782A0
QS20				
QS21		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QS22		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QS23		4822 130 43818	TRS.2SC2878 A OR BRANK	HT328782A0
QS24		4822 130 43818	TRS.2SC2878 A OR BRANK	HT328782A0
QS25		4822 209 83631	IC NJM4558D-D	HC10008090
QS26		4822 130 90347	PHOTO UNIT PC-817	HW10006320
			PHOTO CUPLER 1PAIR	
QS27		4822 130 61227	DIG.TRS	BA10001000
			.DTA114ES UN4111 10k 10k	
⚠ Q802		9965 000 01354	IC L780S15 +15V 1A	HC38915030
⚠ Q803		4822 209 31864	IC NJM7915FA -15V 1A	HC39915090
⚠ Q804			TRS.2SD1415	HT41415100
⚠ Q805		4822 209 31864	IC NJM7915FA -15V 1A	HC39915090
⚠ Q808		4822 209 61533	IC NJM7806FA +6V	HC38906090
Q809		4822 130 61666	TRS.2SC3419 O OR Y	HT334192A0
			40V 0.8A PC=1.2W 5W	
Q810		4822 130 41947	TRS.2SC2458 2SC1704S	HT30001000
			2SC3199 ETC.	
⚠ Q811		4822 209 15921	IC RESET S-806D-Z SEIKO	HC10077530
Q812		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
Q813		4822 130 60588	DIG.TRS.DTC114ES ETC	BA20001000
			PS04-MISCELLANEOUS	
JS01		4822 267 31451	TERMINAL 8P CINCH	YT02080110
			YKC21-3052	
JS03		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
			W/R NI FLM-GND	
JS04		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
			W/R NI FLM-GND	
JS06		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
			W/R NI FLM-GND	
JS07		9965 000 01357	TERMINAL 4P RCA ORGX2	YT02041260
			GRNX2 NI DUAL-GND	
LG01		9965 000 01576	RELAY MR82-24USR	LY20240480
⚠ L801		9965 000 01353	RELAY FTR-F1AA024T	LY20240460
			FOR SUPPLY	
			PT04-SPK. TERMINAL	
			CIRCUIT BOARD	
			PT04-CAPACITORS	
CN51				
~	/S	4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CN58				
			PT04-SEMICONDUCTORS	
DN51		4822 130 82421	DIODE 1D3	HD20002710
DN52		4822 130 82421	DIODE 1D3	HD20002710
DN53		4822 130 82421	DIODE 1D3	HD20002710
			PT04-MISCELLANEOUS	
JN54	/K,/S	9965 000 01774	SPK. TERMANAL 4P	YT01040830
			RR/BB IEC	
JN54	/U		SPK 4P TERMINAL RR/BB	YT01040860

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
JN55	/K,/S	9965 000 01775	SPK. TERMANAL 4P	YT01040840
			BB/RR IEC	
JN55	/U		SPK. TERMANAL BB/RR	YT01040850
LN51		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
LN52		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
LN53		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
014K	/K,/S		BUSHING SPK.TERMINAL CAP	227J259010
014K	/U		BUSHING SPK.TERMINAL CAP	227J259020
			UL 94V-1	
			PT74-CENTER SPEAKER	
			TERMINAL CIRCUIT BOARD	
			PT74-CAPACITORS	
CN71	/S	4822 122 30103	CER. 0.022µF +80%-20% 50V	DK18223310
CN72	/S	4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
			PT74-MISCELLANEOUS	
JN71	/K,/S	9965 000 01776	SPK.TERMINAL T6976 2P	YT01020390
			N B-R	
JN71	/U		SPK TERMINAL 2P B/R	YT01020410
015K	/K,/S		BUSHING SPK.TERMINAL CAP	227J259010
015K	/U		BUSHING SPK.TERMINAL CAP	227J259020
			UL 94V-1	
			PU04-FRONT/FL DISPLAY/	
			SWITCH CIRCUIT BOARD	
			PU04-CAPACITORS	
CU01		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU02		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU03		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU04		4822 126 10935	ELECT. 100µF 6.3V	EJ10700610
CU05		4822 126 10364	CER. 100pF ±10%	DA16101110
CU06		4822 126 10364	CER. 100pF ±10%	DA16101110
CU07		4822 126 10364	CER. 100pF ±10%	DA16101110
CU08		4822 126 10364	CER. 100pF ±10%	DA16101110
CU09		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU10		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU11		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU12		4822 126 11558	CER. 0.1µF +80%-20% 50V	DA17104110
CU13			CER. 1000pF ±10%	DK16102300
			PU04-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : CU14 RU01-RU09	
			RU11-RU19 RU21-RU29 RU31	
			RU34-RU48 RU51-RU63	
			PU04-SEMICONDUCTORS	
DU01		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU02		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU03		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU04		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU05		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU06		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU07			L.E.D. HLMF-K200 RED	HI10005340
DU08			L.E.D. HLMF-K200 RED	HI10005340
DU09			L.E.D. HLMF-K200 RED	HI10005340
DU10		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU11		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU12		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU13		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU14		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU15		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU16		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU17		4822 130 11363	L.E.D. LT3K44B GREEN 30mA	HI10095320
DU18			L.E.D. HLMF-K200 RED	HI10005340
DU20		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DU21		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QU01		4822 209 90244	IC µPD16311GC-AB6	HC10283060
			FTD DRIVER	
QU02		4822 209 16846	IC NJU3718L	HC10171090
QU03				
~		4822 130 41947	TRS.2SC2458 2SC1740S	HT30001000
QU06			2SC3199 ETC.	
QU07		4822 130 63211	DIG.TRS.	BA10004000
			DTA114TS UN4115 10K	
			PU04-MISCELLANEOUS	
SU01				
~		9965 000 00373	PUSH SWITCH	SP01013370
SU26			EVQ11L05R 160GF	
SU32		9965 000 01348	SWITCH ROTARY ENCODER	SR02010070
			FOR MASTER	
SU33		9965 000 01349	SWITCH ROTARY ENCODER	SR02010080
			FOR INP.SELECT	
VU01		9965 000 01350	DISPLAY UNIT	HQ31201920
			SVA-12MM20 FL DISPLAY	
			PU74-STANDBY LED	
			CIRCUIT BOARD	
CU71		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
DU71			L.E.D. HLMF-K200 RED	HI10005340
RU71			RES. 680Ω ±5% 1/6W	GD05681160
			PU84-IR SENSOR	
			CIRCUIT BOARD	
CU81		4822 122 40588	CER. 0.022µF ±10%	DA17223110
CU82		4822 124 80087	ELECT. 220µF 6.3V	EJ22700610
QU81		4822 209 16157	PHOTO UNIT PNA4655M00XB	HW10005020
			IR SENSOR	
			PU94-GYRO ENCODER	
			CIRCUIT BOARD	
CU91		4822 122 40617	CER. 0.1µF +80%-20% 50V DC	DD38104010
QU91		4822 130 11143	PHOTO UNIT GP1A06 2PHASE	HW10033320
			PHOTOINTERRUPTER	
RU91			RES. 330Ω ±5% 1/6W	GD05331160
			PW04-HEADPHONE	
			CIRCUIT BOARD	
			PW04-CAPACITORS	
CW01		4822 122 40586	CER. 0.01µF ±20%	DA17103110
CW02		4822 122 40586	CER. 0.01µF ±20%	DA17103110
CW03		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CW04		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
			PW04-MISCELLANEOUS	
JW01	/K./S		JACK HLJ2307-01-3163	YJ01004330
JW01	/U	4822 265 10685	JACK HLJ2307-01-3160	YJ01004240
			PY04-µ-COM CIRCUIT BOARD	
			PY04-CAPACITORS	
CY01		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CY02		4822 124 23056	ELECT. 47µF 10V	EJ47601010
CY04		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CY07		4822 126 13303	CER. CHIP 1µF +80%-20% 10V	DK98105200
CY08		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CY09		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CY10		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CY11				
~		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CY19				
CY25		53 22 126 11578	CER. CHIP 1000pF ±10% B 50V	DK96102300
CY26		4822 126 11687	CER. CHIP 0.1µF +80%-20%	DK98104200
CY30			BIG ELECT. 1F 5.5V	EX10500530
			DB-5R5D105	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			PY04-RESISTORS	
RY01		4822 051 30479	CHIP 47Ω ±5% 1/16W	NN05470610
RY02		4822 116 83819	CHIP 18kΩ ±5% 1/16W	NN05183610
RY03		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY04		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY05		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY06				
~		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RY11				
RY12		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
RY13		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RY14	/K,/S	4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY15	/U	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY16	/K,/S	4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY17	/U	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY19		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY20		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY22	/S	4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY23	/K,/U	4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY24				
~		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RY31				
RY32		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY33		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY34		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY35		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RY36		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY37		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY38				
~		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RY45				
RY46				
~		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RY56				
RY57		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RY58		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RY59		4822 051 30683	CHIP 68kΩ ±5% 1/16W	NN05683610
RY60		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RY64		4822 051 30273	CHIP 27kΩ ±5% 1/16W	NN05273610
RY65		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RY66		4822 051 30221	CHIP 220Ω ±5% 1/16W	NN05221610
RY67		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
RY68		4822 051 30273	CHIP 27kΩ ±5% 1/16W	NN05273610
			PY04-SEMICONDUCTORS	
DY01		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
DY02		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
DY03		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DY04		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000
QY01			MICROPROCESSOR	HU300JT00F
			TMP93CW40DF MAIN CPU	
QY02		4822 130 41947	TRS.2SC2458 2SC1740S	HT30001000
			2SC3199 ETC.	
QY03		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY04		4822 130 42594	DIG.TRS.	BA20002000
			DTC144ES UN4213 47k 47k	
QY05		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY06		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY07		4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QY08		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY09		4822 130 60588	DIG.TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QY10		4822 130 61227	DIG.TRS.	BA10001000
			DTA114ES UN4111 10k 10k	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QY11		4822 130 41947	TRS.2SC2458 2SC1740S 2SC3199 ETC.	HT30001000
QY12		4822 130 41947	TRS.2SC2458 2SC1740S 2SC3199 ETC.	HT30001000
QY13		4822 130 60588	DIG.TRS.DTC114ES UN4211/KRC102M	BA20001000
QY14		4822 130 61227	DIG.TRS.DTA114ES UN4111/KRA102M-AT	BA10001000
QY15		4822 209 12845	IC S-80730SN-DT-X RESET	HC10054530
			PY04-MISCELLANEOUS	
WY01		4822 321 23704	JUMPER LEAD SMCD-33X100-BDX10-P1 25-S6	YU33100500
XY01		9965 000 01346	SERAMIC VIB. CST20.00MXW0H1 20MHz	FQ02005030
			PY54-CONNECT CIRCUIT BOARD	
WY51		4822 321 62312	JUMPER LEAD 33P-200 P1.25 SMCD-33X200	YU33200510
			PY64-CONNECT-1 CIRCUIT BOARD	
CY61		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CY62		4822 124 22571	ELECT. 10µF M 50V	OA10605020
DY61		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
⚠ LY61		9965 000 01353	RELAY FTR-F1AA024T FOR FIL.SWITCH	LY20240460
QY61		4822 130 61666	TRS.2SC3419	HT334192A0
⚠ RY61		4822 115 90167	FUSE 100Ω ±2% 1/4W	NF02101140
RY62			RES. 10kΩ ±5% 1/6W	GD05103160
RY63			RES. 10kΩ ±5% 1/6W	GD05103160
			PZ04-S-VIDEO SELECTOR CIRCUIT BOARD	
			PZ04-CAPACITORS	
CX01		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX02		4822 122 31349	CER. 68pF ±5% 50V	DD15680300
CX03	/K,/S	5322 122 32143	CER. 22pF ±5% 50V	DD15220300
CX04		4822 124 22275	ELECT. 47µF M 10V RA-2	OA47601020
CX05		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CX06		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CX07		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX08	/U	4822 126 10362	CER. 22pF ±5% 50V	DA15220110
CX09		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX10		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX11		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX12		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CX13		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX14		4822 124 22571	ELECT. 10µF M 16V RA-2	OA10605020
CX15		4822 124 22571	ELECT. 10µF M 16V RA-2	OA10605020
CX16 ~ CX19		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CX20		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CX21			FILM. 4700pF ±5%	DF15472350
CX22		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CX23		4822 125 50384	TRIM. VCT51E 20pF	CT12000200
CX24		4822 124 41543	ELECT. 1µF 50V RA-2	OA10505020
CX25		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CX93 ~ CX96			JUMPER	75060501P0
CX97		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CX98		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CX99	/U	4822 126 10362	CER. 22pF ±5%	DA15220110
CZ01 ~ CZ05		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CZ06 ~ CZ10		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CZ11 ~ CZ25		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ26		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CZ27 ~ CZ33		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ34		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CZ35 ~ CZ42		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ43	/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CZ44	/U	4822 122 33792	CER. 10pF ±5%	DA15100120
CZ45	/K,/S	4822 126 11553	CER. 15pF ±5%	DA15150120
CZ46		4822 126 11591	CER. 24pF ±5% CH 50V BLK	DD15240300
CZ47		4822 126 10362	CER. 22pF ±5%	DA15220110
CZ49		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CZ50		4822 122 40617	CER. 0.1µF +80%-20% 50V	DD38104010
CZ51		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CZ52		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
CZ53			JUMPER	75060501P0
CZ54			JUMPER	75060501P0
CZ65		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CZ66		4822 124 41537	ELECT. 220µF M 6.3V	OA22700620
CZ67		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CZ68		4822 124 41537	ELECT. 220µF M 6.3V RA-2	OA22700620
CZ69 ~ CZ76		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CZ80		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ81		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ82		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CZ83		4822 124 23112	ELECT. 10µF 16V	EQ10601630
CZ84		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ85		9965 000 01040	ELECT. 470µF M 6.3V RA-2	OA47700620
CZ86		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ87		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ88		4822 124 22571	ELECT. 10µF M 50V RA-2	OA10605020
CZ89 ~ CZ92		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CZ93		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CZ94		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
CZ95		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CZ97		4822 124 90353	ELECT. 100µF M 10V RA-2	OA10701020
CZ98		4822 122 30043	CER. 0.01µF +80%-20% 50V	DK18103310
			PZ04-CAPACITOR (COMMON)	
C***			HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : CX92 CZ48	
			PZ04-RESISTORS	
⚠ RX11		4822 050 21801	180Ω ±5% 1/4W	GG05181140
RZ06 ~ RZ15		4822 111 41355	75Ω ±5% 1/6W	GD05750160
RZ22			JUMPER	75060501P0
RZ23			JUMPER	75060501P0
RZ36 ~ RZ41			JUMPER	75060501P0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R***			**PZ04-RESISTORS (COMMON)** CARBON FILM FIXED RES. ±5% 1/6W : RX01-RX10 RX12-RX22 RX24-RX29 RZ01-RZ05 RZ16-RZ20 RZ34 RZ35 RZ42-RZ48 RZ50 RZ51 RZ53 RZ54 RZ56-RZ60 RZ67	
			PZ04-SEMICONDUCTORS	
DX01		4822 130 80321	ZENER DIODE 10V	HD31001000
DZ01 ~ DZ03		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ05		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ19		9965 000 01374	ZENER DIODE MTZ 2.7B 2.7V	HD30271000
QX01 ~ QX04		4822 130 41947	TRS.2SC536SP ETC	HT30001000
QX05	/K,/S	4822 130 63211	DIG.TRS. DTA114TS UN4115 10K	BA10004000
QX07		4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k	BA20001000
QZ01		9965 000 01371	IC MM1140XF	HC10083550
QZ02			IC BA7612N	HC10201210
QZ03		9965 000 01371	IC MM1140XF	HC10083550
QZ04			IC BA7612N	HC10201210
QZ05		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QZ06			IC BA7613N	HC10202210
QZ07		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QZ08			IC BA7612N	HC10201210
QZ09			IC NJM2244 3IN SW 75Ω DRIVER	HC10119090
QZ10		9965 000 01379	IC NJM2263D	HC10198090
QZ11			IC LC74781 OSD	HC10377030
QZ12	/K,/S	4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QZ13	/K,/S	4822 130 61189	DIG.TRS. DTC114TS UN4215 10K	BA20004000
QZ14	/K,/S	4822 130 61189	DIG.TRS. DTC114TS UN4215 10K	BA20004000
QZ19			IC NJM2244 3IN SW 75Ω DRIVER	HC10119090
QZ20		9965 000 01379	IC NJM2263D	HC10198090
QZ21		4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k	BA20001000
QZ22		9965 000 01380	IC 74HC4051 DIP	HC705100B0
QZ23		4822 209 83088	IC NJM2903D DUAL COMPARATOR	HC10022090
QZ24		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QZ25		4822 130 61227	DIG.TRS.DTA114ES ETC	BA10001000
QZ26		4822 130 41947	TRS.2SC2458 2SC1740S 2SC3199 ETC.	HT30001000
QZ27		4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k	BA20001000
QZ28		9965 000 01381	IC 74HC32 DIP	HC703200B0
QZ29			IC TC74HC132AP	HC713205D0
			PZ04-MISCELLANEOUS	
JZ01		4822 265 31302	TERMINAL 3P S TERMINAL	YT02030350
JZ02		4822 265 20725	TERMINAL 2P S TERMINAL	YT02021320
JZ03		4822 265 31302	TERMINAL 3P S TERMINAL	YT02030350
LX01		4822 157 62909	CHOKE COIL 22µH	LC12233800
LZ01		4822 157 62922	CHOKE COIL 33µH J	LC13333800
LZ02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
LZ03		4822 242 73843	EMI FILTER DSS306-91-F-233Z	FM12223010
XZ01	/K,/S	4822 242 73903	CRYSTAL AT49 17.7MHz	JX17001260
XZ02		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260